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N.E.A.M.
UNA FIDES ALTARE COMMUNE

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THE NEW YORK
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THE HISTORY OF HEATING, VENTILATION AND LIGHTING

It was not a physician but an engineer (Carnot) who first stated the principle of mathematical physics which is basic for the heating of buildings and habitations, viz., that heat cannot flow from a colder to a warmer body. The normal temperature of our blood (37.5° C. or 98.6° F.) is ordinarily higher than the temperature of our surroundings, so that we function best and feel best when we are shedding heat to our environment. If an atmosphere (above 65° C. or 80° F.) tends to heat our bodies above normal requirements, we are uncomfortable and below par. Thus heating is inevitably bound up with ventilation, the aim of which today is an atmosphere cooler than our blood and devoid of humidity. At the same time, both heating and ventilation have to do with lighting, since an ordinary arc light is 120 times more illuminative and economic of energy than a gas burner and vitiates as much air in a room as 1½ men, while a gas burner uses up as much air as 4 men and an oil table lamp as much as 7 people. We can protect ourselves from cold but to protect ourselves from humid heat we need, like the unfortunate King of Moab, "a chamber of cooling" (Judges, III, 20),[1] such as A. M. Feldman has made for the Kühn-Loeb bank, or the cool room of Mount Sinai Hospital. What Gorgas tried to do for the miners of the Rand expresses the modern ideal of ventilation, viz., more air, purer air, air cooler than our body temperatures, so that we may shed heat according to the second law of thermodynamics, air free from the exasperating humidity engendered by the respi-

[1] Revised version, "a summer parlor."

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ration, perspiration and effluvia of animal bodies.[2] Investigation of the history of these subjects has been meagre, as dealing with such dry husks as dates of inventions and mathematical computations, yet it is none the less compact of a certain human interest.

Prehistoric and primitive man enjoyed the very best way of heating, ventilation and lighting, namely, the sun, "the light of common day" and the "common air." Primitive feeling about these things is reflected everywhere in literature and art. The Greeks equated Zeus with the skies, Apollo with the sun, Artemis with the moon. *Astra castra, lumen numen.* Many races have been virtual sun-worshippers and fire-worshippers, as witness the impressive invocations to sun and skies in the Prometheus Bound of Æschylus (*O dios aether*), in Paradise Lost, (*Hail! Holy Light!*), in Siegfried (*Heil dir Sonne! Heil der Licht!*). The origin of the Promethean fire is legendary or obscure. Some savages were fain to regard it as a swift-moving, all-devouring animal. But the friendly hearth came to be the sign and symbol of man's home—

"Heilig ist mein Herd: heilig sei dir mein Haus"—[3]

and the Roman slogan for defence of home and country (*pro aris et focis*) implies the dedication of the centric fireplace (*focus*) to the Lares or tutelary dieties guarding the household. As German archæologists have recently shown, the Assyro-Babylonian house was evolved from without inwards, with a single eye to defence from nomad enemies and wild beasts: high walls and paved courtyard first, then the quadrangular house, with fireplace in the middle of the floor. The normal Aryan house was evolved from within outwards, implying an advance in creature comforts upon the bare, stark necessity of *qui vive* and constant fighting. The underground caves of prehistoric man, the serried rows of ridge-ventilated Egyptian houses, the brazier fires of Greek palaces, the Roman hypocausts, the igloo of Lap and Esquimaux, the smelly, sod-built hovels of the primitive Scotch, the Irish cabins, the Scandinavian and English cottages, the huddled walled towns of the Middle Ages, the Norman castle with its jealous winding

[2] See C.-E. A. Winslow, *et al.* Report of The New York State Commission on Ventilation, New York, 1923.

[3] Walküre, Act I, sc. 2.

stairs, the sensible, high-vaulted hearth of the Persians, the highly ornate fireplaces of the French Renaissance, illustrate the enormous ingenuity expended upon heating and ventilation. The open fireplace is perhaps the most picturesque detail in the history of hygiene.[4] The heat of an open fire is radiated heat and in the most primitive habitation, good air circulation was secured by crevices in the loose construction. Such a house was, in the phrase of Terence, *plenus rimarum*, full of chinks. The heat of a stove at ordinary temperature is convected heat in process of becoming radiant. In such interiors, glass window-panes, where existent, make for draughts in winter time, in accordance with Carnot's principle and the discovery of Pettenkofer, that air can pass even through the thickest masonry. The evolution of the stove, furnace, boiler and radiator coil from the open fireplace is a complex history, but worthy of attention.

The first great advance upon the hearth and tripod brazier of the ancients was, curiously enough, the ultramodern Roman invention of central heating,[5] which is probably destined to be the most economic device for community heating in the future.

The Romans possessed, as Sudhoff maintains, a remarkable intuitive or immanent hygienic sense. In their sewers, water supply, waterclosets and heating plants, they actually achieved feats in practical sanitation without conscious hygienic intention, *i.e.*, without knowing why. Engineers tell us that successful heating of a large room depends, not upon the cubic air space, which is vitiated when overheated, but upon the area of floor, walls and windows and the extent of their pervasion by cold outside, so that warm floors (say in a cathedral) will make a room seem warm even when the inspired air is fresh and cold. It follows from Carnot's theorem that the hardest interior to heat is a greenhouse. As fire from the old Greek tripod or brazier sometimes killed by monoxide poisoning, the Romans hit upon the device of a ventilated, extramural, underground heating-plant (*fornax*, furnace) of log embers, leading into a hollow space underneath the floor of the house (*hypocaustum*) which was supported by uprights (*suspensuræ*) and connected with the walls in all four corners by hollow tiles, communicating with similar spaces in the adjacent rooms and upper stories

[4] The story has been delightfully told by J. P. Putnam in "The Open Fire-place in all Ages." Boston, 1881. 2 ed., 1886.

[5] See O. Krell: Altrömische Heizungen, Munich, 1901; and for Roman remains in England, which included even hot-water piping, see W. Berman [R. Meikleham]: On the History and Art of Warming and Ventilating Buildings. 2 vols. London, 1845.

and eventually discharging smoke and gases by an outside vent. This invention, attributed to Sergius Orata (100 B. C.), is mentioned by the younger Pliny (Ep. 1, 2, No. 17) and Seneca (who also mentions window-panes), and is described at full length in the *De architectura* of Vitruvius (circa 50 B. C.), and while first applied to public bath houses, became common in the dwellings of the wealthy about 10 A. D. The oldest specimen excavated was found in the *caldarum* (sweating room) of the old and new *thermae* at Pompeii. Other hypocausts were discovered in the baths of Caracalla, in a villa at Herculaneum (Winckelmann), in the Emperor Hadrian's palace at Treves and in the *thermae* of St. Barbara in the same city (circa 286–388 A. D.). Actual smoke pipes are found in the remains of the Saalburg. Hypocaustal heating thus penetrated to the northern marches (Germany) and became common in Britain, as evidenced by Roman remains at Dover, Chester, Cirencester, Lincoln and other towns, but died out in Italy during the decline of Roman power.

Although Ctesias (400 B. C.) mentions the burning of natural gas by fire-worshippers in Asia Minor and although bath-houses in Byzantium were heated by oil from the Caspian Sea region (about 1400 A. D.), heating in the Middle Ages was effected mainly by the open fire, which, in Anglo Saxon houses, was usually in the center of a room. Ornate window panes of "royal glass" were revived by the Arabs and are mentioned in Chaucer's Dream as decorative luxuries. In Spain, the charcoal brazier was wheeled about, like viands in hotels. In Italy, China and India, it is still carried about the person, to become a source of monoxide poisoning or even of cancer. Porcelain stoves or "cockle-ovens" were known in Sweden in the 9th century and during the 13th century spread to Germany, where iron stoves were well known by 1500. In the Southern and Western countries, progress was slower. Chimneys, a necessity of the inset or walled fireplace, exist at Pompeii but were not revived in Italy until the 14th century. In mediæval France, the fireplace, with highly ornate mantelpiece and chimney, became a veritable *motif* for elaborate decoration, as evidenced by such specimens as those in the Louvre, the Hôtel de Ville at Lyons, the house of Jacques Cœur (Bourges), the Hôtel de Cluny (Paris), the triplex fireplace at Poitiers and other examples depicted by Viollet-le-Duc.[6]

[6] A. F. Viollet-le-Duc: Dictionnaire raisonné de l'architecture française du XI^e^ au XVI^e^ siècle. Paris, 1854–68. Also, his Histoire de l'habitation humaine. Paris, 1875; and the pictures in Putnam's Open Fireplace, Boston, 1886, *passim*.

The most effective type for reflecting heat was the high vaulted fireplace of the Turks and Persians. The original cooking stove was a pile of stones heated by fires underneath, like an army incinerator. From these, stone ovens or furnaces were evolved. In the castle of the Teutonic Order at Marienburg, a number of subterranean furnaces of this kind were employed for central heating during the 13th–17th centuries. In 1822, they were renovated by the Prussian government, with very good heating in bitter weather. The ventilation of mines by fans, wind-shields and pumps for foul air was first described in the *De re metallica* of George Agricola (1546).

The 17th century is remarkable for the correct proportioning of the fireplace, chimney and mantel by Dr. Louis Savot (1579–1640), who, in 1624, cut down its width and added a smooth flue for smoke abatement, with such subsequent improvements as Winter's ventilating fireplace (1658) and Dalesme's smokeless stove (1681); and the beginnings of the long series of trial-and-error experiments on ventilating the Houses of Parliament, which, as Billings observes, comprise the whole history of ventilation.[7]

In 1660, Sir Christopher Wren began by cutting large square holes in each corner of the ceiling with valved funnels above. As there was no supply of fresh air for circulation, these merely brought down cold draughts on the members from the roof. In 1723, Dr. Desaguliers added to these chimneys, tubes which were heated to produce upward suction of vitiated air. The housekeeper, Mrs. Smith, disapproved, as interfering with her comforts, and the members suffered from stuffy air whenever she forgot to light the accelerating fires. The doctor then tried sundry fans and blowers up to 1736, but in spite of the remarkable work of the Rev. Stephen Hales on the ventilation of ships and prisons (1758), nothing further was done until 1811, when Sir Humphry Davy attempted to ventilate Parliament by boring many holes in the floor for ingress of fresh air, with heatable tubes and upper chimney arrangements, as before. The total failure of this plan, for which the Lords declined to pay anything, elicited the snickering epigram:

"For boring twenty thousand holes
The Lords gave nothing—damn their souls!"

The large horizontal heating flues beneath the floor (100′ x 14″ x 18″) gradually cracked, permitting ingress of furnace gases, and, in consequence, the woodwork caught fire in 1834 and both Houses were burned. Between-

[7] J. S. Billings: Ventilation and Heating, N. Y., 1893, 26–41, *passim*.

whiles, the Marquis de Chabannes had introduced steam-heating, with foul air shafts above. In 1835, Dr. D. B. Reid ventilated the new Houses by boring nearly a million holes in floors and seats for maximum ingress of air, "with elaborate arrangements for filtering, warming and tempering the air supply." This system proved satisfactory for a long time.

In the 18th century, following the discovery of the gases of the atmosphere by Black (1757), (1766), (1772), Priestley (1771), Scheele (1771) and Lavoisier (1775), the physiology of respiration, begun by Boyle (1660), Hooke (1667), Lower (1654) and Mayow (1668), was completed by Black (1754), Priestley (1772), Lavoisier (1775), Laplace (1780–85), and Lagrange (1791). The invention of the three thermometers of Fahrenheit (1714), Réaumur (1730) and Celsius (1742), of the steam engine by Watt (1765), of the viable gas-jet (1779) and the Argand burner (1784), gave a new impetus to heating and lighting.

The theory of the ventilating fire place as a conic section was stated by Nicolas Gauger (1713) and the advantage of the elliptical or parabolic surface over the old rectangular species (for maximum reflection of heat) was demonstrated in practice. From such inventions as Benjamin Franklin's Pennsylvanian fireplace (1745), Montalembert's inverted smoke-flue (1763) and Count Rumford's investigations of hearth fires (1796), the modern stove was evolved. Hot air heating became common, *e.g.*, in the Neues Palais at Potsdam (1740–86), the City Theatre and Lunatic's Tower of Vienna (1765–90) and the Clinic at Mainz (1792). The use of both steam-heating and hot-water heating in greenhouses was the first step toward modern central heating. Hot air heating of buildings by stoves of boiler brass invested with a shell of masonry (cockle-ovens) was in vogue up to 1824. During 1801–8, Sir Humphry Davy produced a viable carbon (electric) arc light. The union-jet or "fishtail" gas-burner was invented by Neilson of Glasgow in 1820. Carnot's treatise on the motor power of heat (1824) with the subsequent investigations of Mayer, Joule, Clausius, the Thomsons, Helmholtz, Gibbs, Maxwell, Boltzmann, Nernst and Planck, created the modern science of thermodynamics. Bischoff introduced a successful gas-heater in 1839, and in 1847 James Young distilled petroleum, which was in use as an illuminant by 1853. Wunderlich's treatise on clinical thermometry was published in 1868. Central heating came into vogue in Germany about 1870, and was operated by low pressure steam (0.3 atmospheres) by Bechem and Post in 1878. The books of General Morin (1854) and Max von Pettenkofer (1875), with the later investigations of Flügge (1905), Haldane (1913), Leonard Hill (1913) and Barcroft (1914–25) on humidity, heat, stuffiness and anoxæmia are landmarks in the history of ventilation. The Welsbach burner was perfected during 1885–93. In 1886 and 1896, the American and German Societies of Heating and Venti-

lating Engineers were respectively founded. Electric heating was introduced by Crampton & Co. (London) in 1892. Electric lighting (in full swing by 1914) was improved by the Edison, Nernst, Finsen, Bolton, tungsten, ultraviolet and radium lamps. Central heating (by steam) was first applied to habitations on a big scale by Holly at Lockport, N. Y., in 1880. Central heating by natural gas had been common in the Western states and was in use at Fredonia, N. Y., as early as 1821. The prime movers of central heating in Germany[8] (usually by warm water) were the Siemens brothers, Heinrich Wolpert, Hermann Fischer, Hermann Rietschel (1847–1914)[9] and Hermann Recknagel (1868–1919).[10]

It will be apparent from this slight sketch that present problems as to the central-heating of great cities at basic sources, with reference to economy of fuel and transportation, along with the separate heating, lighting and ventilation of commercial plants, ateliers, prisons, municipal buildings, theatres, concert halls, mines, garages, railway trains, ships and vehicles, are subjects of vast scope in which the work of the individual becomes a mere coefficient in their historic developments. Public hygiene, even more than medicine, now utilizes every branch of human activity from advanced mathematics to mechanical and manual labor, and in these developments the great electric and central heating plants have done important work. Whether we like it or not, this absorption of individual effort and achievement in vast cooperative social endeavors will probably be the note of the medicine and hygiene of the future. For ready reference as to facts and dates, some of the salient landmarks of our subject will be found in the subjoined

Chronology of the Development of Heating, Ventilation and Lighting

Prehistoric: Sunlight; open air; open fire in caves.
Babylonians: Detached houses in courtyard; stone oven (cairn) in center of house.
Egyptians: Houses in rows; small windows; ridge ventilation; wind conductors (mulgufs).
Greeks: Hearths and braziers; wood charred for smoke abatement.
400 B. C. Ctesias mentions burning of natural gas by fire-worshippers.
100 B. C. Roman central heating of baths by hollow chamber under floors, attributed to Sergius Orata.
10 A. D. Roman central heating extended to upper stories of dwellings.
9th century: Porcelain stoves (Kakle) known in Scandinavian countries.

[8] For the history of central-heating up to 1870, see H. Vetter: Gesundheits-Ingenieur, München, 1907, XXX, Festnummer, 10–25: 1914, XXXIV, 757–767.

[9] Obituary: Gesundheits-Ingenieur, München, 1914, XXXVII, 201–203.

[10] Obituary: *Ibid.*, 1919, XLII, 104; 352.

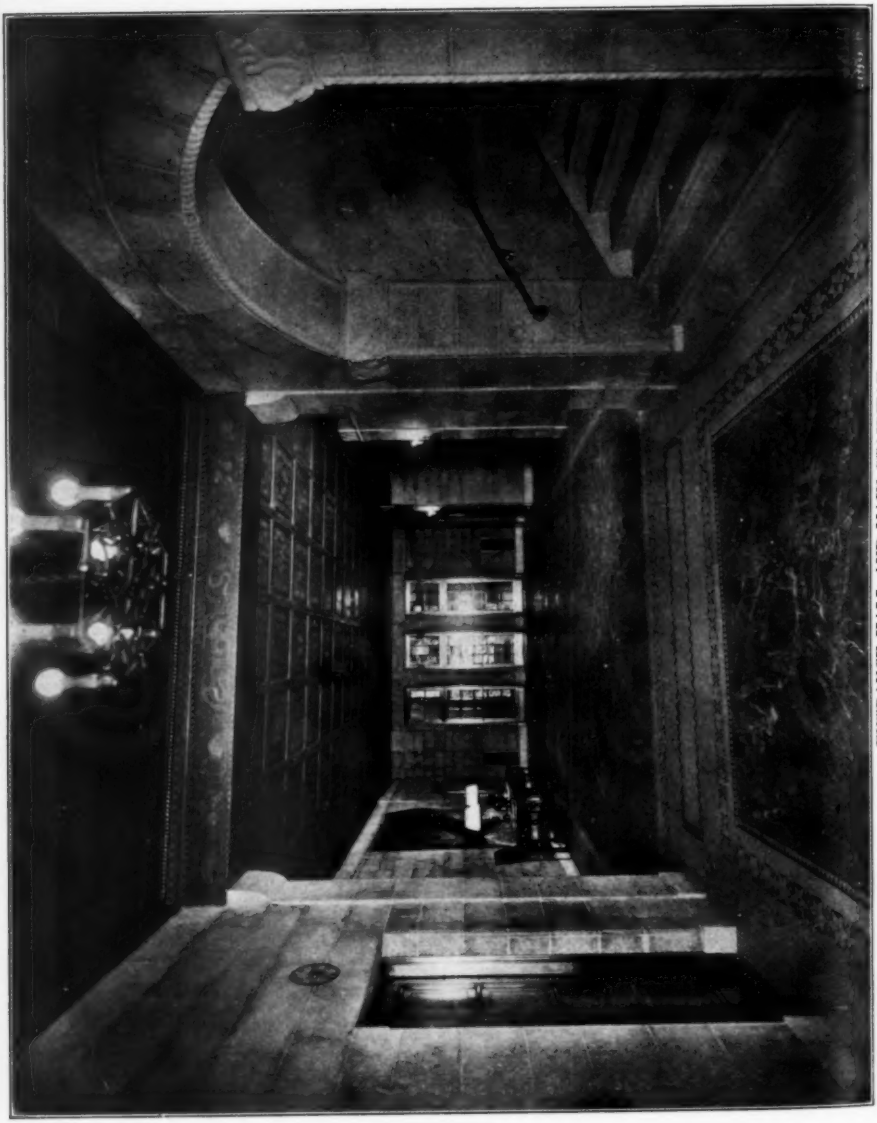
13th century: Central heating in Marienburg Castle (Prussia). Porcelain stoves in Germany.
1400. Byzantine baths heated by oil.
Chimneys pictured by Leonardo and artists of the Cinquecento.
1490. Moselle stove-maker invited to fair at Frankfurt a. M.
1556. Georg Agricola describes ventilation of mines (*De re metallica*).
1618. Franz Kessler mentions stoves of iron and porcelain (zigzag shape).
1624. Louis Savot invents narrow fireplace (inside air), with flue (Louvre).
1625. Cornelius Drebbel proposes thermostat (in effect in 1650).
1652. Sir Hugh Platt proposes steam heating for greenhouses.
1658. Sir John Winter invents ventilating fireplace, with grate and valve (outside air).
1660. Robert Boyle proves air to be essential to life and combustion.
Sir Christopher Wren attempts ventilation of Houses of Parliament.
1667. Robert Hooke shows that respiration is effected by blood changes in the lungs.
1668. John Mayow theorizes as to chemical nature of blood changes in respiration.
1669. Richard Lower oxygenates venous blood.
1674. Denis Papin experiments with miniature boiler (digester).
1681. Dalesme invents "smokeless stove" (shape of bent clay pipe).
1682. J. J. Becher mentions inflammability of coal-gas in his "Concordantz."
1698. Thomas Savery's steam engine.
1710. Thomas Newcomen invents atmospheric steam engine (improved by Watt, 1765).
1711. J. J. Partels constructs an aspirating ventilator for mines.
1713. Nicolas Gauger publishes memoir on heating and invents ventilating fireplace of elliptical shape.
1714. G. D. Fahrenheit invents 212° mercury thermometer.
1716. Martin Triewald constructs hot water heating plant for greenhouse at Newcastle-on-Tyne.
1726. Stephen Hales experiments with "elastic inflammable air of coals."
1730. Réaumur invents 80° alcohol thermometer.
Terral's bellows for heaters (1729) applied to ventilation of House of Commons by Desaguliers.
1740-86. Hot air heating at Neues Palais, Potsdam.
1742. Anders Celsius invents Centigrade thermometer.
1743. Stephen Hales publishes "A Description of Ventilation" (London, 1743).
1745. Franklin's Pennsylvanian Fireplace (revolving stove).
1750. Stephen Hales introduces artificial ventilation in prisons.
1752. William Cooke describes plan for steam-heating of greenhouses (Royal Society).
1757. Joseph Black discovers CO_2.
1758. Richard Brocklesby introduces ridge ventilation in small (decentralized) military hospital units.
1758-86. Benjamin Franklin investigates air-currents and smokiness in chimneys (Phil. Tr., II).
1763. Montalembert invents inverted smoke-flue, with dampers.
1765. James Watt evolves modern steam engine (patents 1769-84).
James Watt and John Southern invent indicator (volume-pressure) diagram.
1766. Cavendish discovers hydrogen.
1769. Manger introduces hot air heating in New Palace at Potsdam.
1771. Priestley and Scheele isolate oxygen.
1772. Rutherford discovers nitrogen.
1775. Lavoisier discovers oxygen and the nature of gas interchange in the lungs.
1777. Bonnemain invents system of warm water heating, for greenhouses.
1779. William Murdoch invents gas burner with three jets (cockspur burner).
1780-85. Laplace shows that products of combustion and respiration are CO_2 and H_2O.
1783. Ami Argand invents concentric tube burner with intervening wick.
1783-4. J. P. Minckelaers introduces gas-lighting in Louvain.
1784. James Watt constructs steam radiator for his work room.
1785. James Watt patents device for smoke-abatement.
1791. John Hoyle patents improved method of steam-heating.
Lagrange and Hassenfratz discover tissue respiration.
1792. Molitor heats clinic at Mainz with hot air.
W. Strutt heats cotton factory (Belfer) and Derbyshire Hospital with hot air.
1792-8. William Murdoch illuminates factory with coal gas.
1792-1824. Porcelain hot-air stoves (cockle-ovens) in vogue.
1793. Joseph Green patents system of hot air heating.
1796. Count Rumford investigates and improves fireplaces.
1797. Curandau heats porcelain factory in Paris with hot air.
1799. Philippe Lebon illuminates lighthouse at Havre with coal gas.
1800. F. W. Herschel discovers ultrared rays in spectrum.

1801. J. W. Ritter discovers ultraviolet rays in spectrum.
1801-8. Sir Humphry Davy invents carbon (electric) arc light.
1807. William Murdoch starts gas-lighting plant at Manchester, England.
1810. Chartered Gas Company of London authorized by Parliament.
1812. Bonnemain introduces hot-water heating in St. Petersburg.
1814. London lighted with gas-lamps (April 1).
1815. Samuel Clegg invents regulator for municipal supply of coal gas.
Cutter invents smoke-consuming fireplace.
1817. Turner heats hothouses with high-pressure steam.
1818. Marquis de Chabannes applies Bonnemain's warm water heating to business plants in Burlington Arcade.
1819. David Gordon patents compressed coal gas for piping to habitations.
1820. Coal tar oils used in Holliday lamp.
Leon Duvoir invents medium pressure hot-water heating.
J. B. Neilson invents union jet or "fish-tail" (reinforced) gas-burner (fusion of two flames).
1821. P. L. Meissner publishes treatise on hot-air heating (basic for central heating).
Central heating by natural gas at Fredonia, N. Y.
1823. Jacob Perkins patents system of steam-heating.
1824. Sadi Carnot publishes Reflections on the motor power of heat.
Thomas & Laurens introduce combined steam and hot water heating at Hopital Lariboisière.
1826. Sir Goldsworthy Guerney invents oxyhydrogen lime light.
1827. Thomas Drummond employs lime light in Ordnance Survey of Ireland (Drummond light).
Péclet publishes treatise on lighting.
1828. Paris Bourse heated by high-pressure steam.
1829. Péclet publishes treatise on heating.
1831. A. M. Perkins introduces high pressure hot-water heating.
1834. Warm-water heating of greenhouse at Nymphenberg Park (Munich).
1835. W. H. Fox Talbot invents incandescent light of finely divided lime.
Pinakothek at Munich heated by hot air.
1836. Thomas Tredgold publishes Principles of Warming and Ventilation.
1837. Gustav Magnus proves that tissues take up oxygen and give off CO_2.
1837. Gourney introduces crude form of steam radiators ("batteries").
C. Hood publishes treatise on heating.
Karl Friedrich Mohr states principle of conservation and transformation of energy.
1838-58. Jobard (Brussels) investigates incandescence of electrified carbon and platinum wires *in vacuo*.
1839. Karl Bischoff introduces first successful gas heater.
1840. W. P. Grave invents vacuum lamp (incandescent platinum wire).
1842. Robert Mayer states equivalence of mechanical and thermal energy.
1843. J. B. L. Foucault uses graphite carbon pencil for arc lamps.
George Godwin starts *The Builder*, London (periodical).
1845. King devises plumbago rod electric light.
1847. J. P. Joule determines mechanical equivalent of heat.
Helmholtz publishes treatise on conservation of energy.
James Young distils petroleum.
1848. J. P. Gillard invents water-gas lamp with platinum gauze mantle.
1849. James Thomson establishes absolute scale of temperature in thermometry.
Journal of Gas Lighting (London) started by T. G. Barlow.
1850. Clausius publishes treatise on the motor power of heat (entropy).
1851. Pettenkofer illuminates Munich railway station with wood gas.
1852. Lord Kelvin states principle of irreversible dissipation of energy.
1853. Sir Edward Frankland invents regenerative gas burner of Argand type. (Improved by W. R. Bowditch, 1854.)
Petroleum used for lamp lighting.
1854. Gen. Arthur Morin publishes Etudes sur la ventilation.
1855. R. W. von Bunsen invents atmospheric (mixed air and gas) burner (Bunsen burner).
1858. *Journal für Gasbeleuchtung*, Munich, founded by N. H. Schilling.
1859. E. L. Drake bores for petroleum in Pa. Importation of German oil lamps. First American patent for lamp.
M. G. Farmer (Newport, R. I.) first illuminates houses with platinum (electric) lamps.
1860. Adolf Wolpert publishes treatise on heating and ventilation (2. ed. 1880).
1862. Pettenkofer's CO_2 test as a measure of bad ventilation.
1863. William Siemens proposes central gas heating for Birmingham.
1865. Hinks introduces duplex burner for coal-oil lamps.
1866-8. Pflüger shows that locus of respiratory changes is in the tissues.
1867. William Siemens proposes central gas lighting at source (coal mines).
1868. Wunderlich publishes treatise on temperature in disease (clinical thermometry).

1870. Beginnings of generalized central-heating in Germany.
Meidinger (Carlsruhe) invents base-burning oven.
1871. German law regulating safe location of boilers.
James Thomson devices volume-pressure (thermodynamic) diagram.
1873. Willard Gibbs devises volume-entropy and temperature-entropy (theta-phi) diagrams.
Willard Gibbs invents solid thermodynamic model (volume-pressure-temperature).
Jacquet constructs a burnished reflector fireplace.
Clerk Maxwell's treatise on electricity and magnetism (mathematical statement of Faraday's experimental findings).
Institute of Municipal and County Engineers (Great Britain) founded.
1875. Max Pettenkofer publishes monograph on ventilation of dwellings.
1875-78. Willard Gibbs publishes memoir on the equilibrium of heterogeneous substances (physical chemistry).
1876. Paul Jablochkoff invents parallel carbon-kaolin arc lamp (Jablochkoff candle).
1877. Jablochkoff's kaolin electric light.
Plumber and Sanitary Engineer, N. Y., founded (continued as *Sanitary Engineer* 1877-1882).
1877-78. Downes and Blunt demonstrate bactericidal effects of light (Royal Society).
1878. Bechem & Post introduce low pressure steam (0.3 atmospheres) in central heating plants.
Edison invents platinum wire incandescent electric light.
Edison and Lane Fox propound theory of Nernst lamp (rare oxides over platinum wire).
F. von Hefner-Alteneck invents differential carbon arc lamp.
G. Stumpf published *Der Rohrleger* (periodical). (Continued as *Gesundheits-Ingenieur*, 1880-1926.)
Adolf Wolpert invents radiating stove.
1879. Edison invents carbonized bamboo wire for electric lighting.
Friedrich Siemens invents inverted regenerative lamp for street lighting. (Faraday, 1819.)
Friedrich Siemens invents improved regenerative gas burner.
1880. Macfarlane Gray applies Gibbs' theta phi diagram (1873) to engineering.
1881. Edison Electric Light Company (New York) organized.
Holly introduces central steam heating of habitations at Lockport.
Sanitary Engineer, London (periodical), founded.
1882. Clamond invents basket mantle (cone of calcined magnesia) for lamps.
Clamond invents inverted gas and air burner.
Friedrich Siemens invents regenerative reflector oven.
1883. J. T. F. Hermans states present view of faulty ventilation (humidity and overheating).
1884. Friedrich Siemens invents free flame heating system, with more complete combustion and maintenance of higher temperature.
1885. Arthur Kitson invents atmospheric (incandescent) burner for oil lamps.
Friedrich Siemens invents "regenerative" gas-stove (odorless gas combustion and heating of floor by reflection).
1885-7. Auer von Welsbach patents and improves incandescent mantle of rare oxides (Welsbach burner).
1885-10. Hermann Rietschel becomes professor of heating in Technical High School at Charlottenburg.
1886. Hermann Rietschel publishes monograph on heating and ventilation of schools.
1887. Brown-Séquard and d'Arsonval announce false theory of toxic organic impurities in respired air.
1890. City Hospital of Hamburg central heated on ancient Roman (hypocaust) principle.
1891. Walter Snow urges "recirculation" of factory air.
1892. Crampton & Co. (London) patent electric heater for dwellings (four times as expensive as steam heating).
1893. Hermann Rietschel publishes official formulary-atlas for heating and ventilating computations (2. ed. 1894).
Auer von Welsbach perfects incandescent mantle (1: 99 cerium and thorium oxides).
Finsen treats smallpox pustules by exclusion of ultraviolet light.
1894. American Society of Heating and Ventilating Engineers founded.
J. S. Billings published Principles of Ventilation and Heating (2. ed. 1893).
F. de Mare invents collodion incandescent mantle (artificial silk mantle).
Report of Billings, Mitchell and Bergey (bad effects of vitiated air not due to CO_2).
1895. W. K. Röntgen discovers X-rays.
Finsen treats lupus by concentration of chemical (ultraviolet) light.
O. Knöfler patents ammonium sulphide mantle.

1895-1921. H. J. Klinger edits *Kalender für Heizungstechniker* (Halle).
1896. First Congress of German Heating and Ventilating Engineers (Berlin).
Rietschel starts Testing Institute for heating and ventilating appliances at Charlottenburg (new buildings 1907).
Leo Arons (Berlin) invents mercury vapor lamp (no red or orange rays).
1897. H. A. Kent invents inverted incandescent mantle with invisible gas-air flame.
H. W. Nernst invents incandescent lamp of platinum wire covered by oxides of zirconium and yttrium.
1897-1919. Hermann Recknagel edits *Kalender für Gesundheitstechniker* (Munich).
1898. P. and S. Curie discover radium.
1899. Duddell & Marchant study behavior and shape of alternating current arc light.
1900. A. Walkhoff shows destructive effect of radium upon the tissues.
1901. Fritz Blau invents osmium incandescent lamp.
Aschkinasi and Caspari show that radium checks growth of bacteria.
Dantes and Bloch treat lupus with radium.
Temper and Pfützner construct central heating plant for Dresden.
1902. Peter Cooper Hewitt perfects quartz mercury vapor lamp.
1903. Just and Hanaman invent tungsten and molybdenum lamps.
Rollier opens clinic at Leysin for treatment of surgical tuberculosis with ultraviolet light.
Danysz shows selective effect of radium upon malignant tumors.
1904. Werner von Bolton isolates pure tantalum (Siemens' & Halske's tantalum lamp, 1904).
1905. Flügge and pupils show that bad effects of vitiated air are due, not to impurities, but to heat and humidity.
German Electric Light Company introduces osram lamp (osmium and tungsten).
1906. Hans Kuzel uses colloids of tungsten, molybdenum, etc., for incandescent lamps.
1907. Calvert and Bastian employ copper wire in incandescent lamps.
Benedict and Milner show that excess of CO_2 exerts no evil effects in a cool chamber.
1910. Rollier opens Ecole de soleil at Cergnat for treatment of tuberculosis with Alpine (ultraviolet) sunlight.
1911. Recknagel prepares exhibit of heating and ventilation (Dresden Hygienic Exposition).
1913. Sir Leonard Hill, Haldane and their pupils confirm Flügge's findings on effects of humid heat.
New York State Commission on Ventilation instituted (with laboratory).
1914. Chicago Commission on Ventilation confirms Flügge's findings.
1914-1915. New York State Commission of Ventilation confirms Flügge's findings.
1915. Hermann Recknagel publishes treatise on ventilation and heating.
1919. Huldschinsky shows curative effect of sunlight or quartz (mercury vapor) lamp-light upon rickets.
1920. Recknagel's formulary for computations on warm-water (central) heating published.
1923. Report of New York State Commission on Ventilation (1913-23).
1926. Extensive use of Roentgen, radium, ultraviolet and other kinds of radiation in many diseases.

F. H. GARRISON



ENTRANCE HALL AND MAIN STAIRWAY

ADDRESSES DELIVERED AT THE DINNER IN HONOR OF THE NEWLY ELECTED HONORARY FELLOWS

BOOKS AND THE DOCTOR

HARVEY W. CUSHING
Boston

We come here, ladies and gentlemen, on this auspicious occasion, so far as I am aware, to talk about books and a library, and what is more, about the doctors' book and the doctors' library. The history of our great community libraries containing medical books is an unusual and interesting one.

These great assemblages of books have usually begun with an individual of bookish tendencies who has gathered some people about him in a book and journal club. Books accumulate and there is no suitable place to put them. The public libraries are tried but they are poor care-takers for a strictly professional foundling, and so the doctors are thrown on their own resources, and this is a very good thing for the doctor. The profession cannot long play the cuckoo in the matter of its books. It must build its own nest, must care for its own books. A book conscience thereby developed serves as the best possible measure of the status of the profession. As the calorimeter tells the activity of the patient's metabolism, so may you determine the plus or minus activity of the profession anywhere by the character and condition of its community library. And no less well may you gauge by the same measure the quality of a medical school, of a hospital, of a laboratory, of the individual doctor himself.

There is one peculiar thing about books insufficiently emphasized. They are bibliotrophic, one attracting another, for books don't quarrel—only their authors. House them properly and other books will instinctively come to roost, and given a good working library, rich in its books of reference, its usefulness depends upon the encouragement and convenience it offers to the reader and on the infectious enthusiasm and spirit of its working staff. The testy librarian of tradition, miserly of his treasures, near-sightedly buried in his latest acquisition, impatient of inter-

ENTRANCE HALL AND MAIN STAIRWAY

ruptions, is an extinct species, and if such persons ever really existed outside the pages of fiction it would be charitable to us to ascribe their traits to the absent-mindedness that a most exacting task is prone to ingender.

You have doubtless heard how late one afternoon the college librarian started home with a friend, and finding that it was raining returned to the library for his umbrella. As he did not reappear he was sought for and found absently looking for the object under "U" in the card catalogue.

To inoculate a doctor with the library habit he must be caught young. You must set a trap for him so baited he will walk into it unawares. There is no use to counsel him to read. Books must be put in his way so that he will stumble over them and make his own discovery.

William James once told how as a child he discovered a huge book one rainy afternoon in the garret of his father's house. He read it with absorbed interest till called to his supper, then told his mother he had found a most wonderful book full of battles and killing of people. It was called "The Holly Bibble."

It is someone's business in every medical school to teach laboratory methods to students, but no one's business to teach them how to use medical literature which will be infinitely more useful to them than experience with smoked paper and Ludwig's drum. Short talks on the use of such a library as yours might well be made obligatory sectional exercise for medical students. Such an exercise, I am aware, on the methods of looking up subjects in the great indices sometimes meets with discouragement, as when the student requests a copy of "Ibid." as being just the work he is looking for.

No, there is only one thing to do with the young man in these days of the movie and jazz and the flivver; place both books and cigarettes in his way and caution him to beware of them as dangerous. He will certainly take to one, perhaps to both. This may, after all, be the right track, to warn young people against books as a bad habit, or at least against book collecting for one may become enslaved and soon so enveloped by books that they are in the front hall and in the dining room till you never can find the volume you want and you are sure the wife or children must have taken them when they borrowed your paste pot.

This, I take it, is what happened to your New York Academy of Medicine and explains this meeting. You had become so swamped with books in your original quarters that the volumes could not be found when called for. In fact beware of books. Some biologist has stated that if nature could take her course unimpeded the world would become populated with elephants wallowing about knee-deep in a seething mass of mice. This man knew nothing about books. As a species they are imperishable. Against their multiplication nature has no chance whatsoever. The time will come when every tree has been felled for paper, every calf for leather and the few long-haired and ill-nourished people left in the world will be making card-indices of the volumes which have filled every available cranny in which they can be stored.

Laws will have to be passed against their importation; only a quota of French, German, Italian and Polish (especially Polish) books will be admitted each year, for should you happen to leave a pair of foreign books alone on a shelf in the state known as their original wrappers, they breed with amazing rapidity. Then, too, they have their diseases and are a trouble like too many children—they have worms, they wear out their clothing, they break their backs, they dislocate their joints, they require the constant care of a bibliotherapeutist.

But there is no use telling you to beware of books when you have already burned your bridges. Books will like the looks of your new building and come in such swarms, you will be driven out and into a new building in another generation. A library which does not grow is a *corpus inanimi*—the better it is, the faster it grows.

We in Boston made the usual small beginning more than a century ago with the books of a doctors' club in the house of an individual doctor. Then they were moved to an apothecary shop, then to the medical school, thence to a public library, thence to a succession of supposed permanent homes. The first was the former dwelling of Dr. Samuel Greeley Howe (who happened to marry "The Battle Hymn of the Republic," which served to obscure Samuel in favor of Julia) thence to a larger home, then to a beautiful Academy building where now there are so many books there is scarce standing room for the librarian and his staff.

Fortunate as the older communities like Philadelphia, Boston and New York may be in their present magnificent collections, there are always more books to buy and one cannot afford to wait for donations. The more precious classics of medicine, the number of which is limited, grow more and more rare, more and more expensive, for the competition is great. New schools are being founded that know the value of books. It is rumored that Tulane is buying, also Rochester, Cleveland, Detroit, Pittsburgh and the new Duke University plans to have a great library for its medical department. So even a school of undergraduates may enter into competition with you for books.

At the Johns Hopkins Library, they have drawn plans for a building with a potential stack room of nigh half a million volumes and appointed a one-time New Yorker, whose name spells success in whatever he attempts, to fill another Chair as Professor of the History of Medicine. Such a post for such a man in such a place indicates progress in medical science, merely building on a knowledge of the past of which libraries are the storehouse. The tendency of our recent times has been to lavish gifts on our laboratories and neglect our libraries, but medicine needs both if we are to uphold our vaunted reputation of being a scholarly profession.

I bring to you, Mr. President, from the Boston Medical Library Association our greetings and not only our greetings but congratulations on the transfer of your precious collection of books to its new quarters. The degree of solidarity among our medical fellow kind in each and every community may be measured by the character of the library which it has gathered. From such a library as yours, as an appropriate and convenient center, will increasingly radiate a host of subsidiary activities relating to health, hygiene, and sanitation which are such important factors in community welfare.

THE COLLEGE OF PHYSICIANS OF PHILADELPHIA

GEORGE E. DE SCHWEINITZ
Philadelphia

It is a real privilege to be here tonight and to hold in happy anticipation an invitation to take part in the ceremonies of tomorrow which shall signalize a notable achievement in the fair field of medical endeavor.

It is an honor to represent the College of Physicians of Philadelphia, for I assume that this pleasant task and highly appreciated duty constitute my credentials, and to bring to you, Mr. President and Members of the Academy of Medicine of New York, the hearty felicitations of the Collegiate Body which I have named on the consummation of your labors and the fulfillment of your cherished desires.

The Academy of Medicine of New York and the College of Physicians of Philadelphia, separated in distance by about a hundred miles, are unseparated in their cooperative effort to maintain the dignity of literary intercourse and acquirements, and to enhance the value of medical and surgical effort.

"Like mighty partners, equally they raise
Yet neither envious of the other's praise."

I have denominated membership in the College of Physicians as my credential, and hence it is not out of place, following a suggestion of your Director, to say a few words which shall serve to introduce the Philadelphia Institution to the New York Academy of Medicine, even though I know full well that we are acquainted, and that on many pleasant occasions representatives of our respective memberships have exchanged pulpits (let us hope to mutual satisfaction), and that therefore I come not altogether as a stranger, not merely as a colieague, but, quite happily, as a warm and admiring friend.

The erection of a College of Physicians in Philadelphia was in 1767, suggested to Thomas Penn by John Morgan, but his proposals were rejected and a charter was refused. Subsequently several physicians, who later became Fellows of the College, after their graduation from the School of Medicine of the University of Pennsylvania (then called the College of Philadelphia) went

to Edinburgh and London to extend their medical education, and, struck with the success and value of medical societies in those cities, on their return debated the need of similar efforts in the new country, and Samuel Powell Griffits expressly states, writing in 1783, that an American College of Physicians constituted an urgent need. Similar ideas were recorded in letters which passed between the physicians to whom I have referred and friends they had made in England and Scotland. Therefore several forces were active in the foundation of the College in Philadelphia, and the Royal College of Physicians of London became its prototype.

Although instituted in 1786, when an election of officers took place, the first meeting after full organization did not occur until January 2, 1787, and this day, by common consent, is regarded as its official birthday, and in less than two months from today its 140th anniversary will be celebrated.

Those present at this first meeting, namely, John Redman, President; John Jones, Vice President; Gerardus Clarkson, Treasurer; James Hutchinson, Secretary; and William Shippen, Jr., Benjamin Rush, John Morgan and Adam Kuhn, Censors, signed the Constitution, and the device for the seal was adopted which reads *"Non sibi sed toti."*

In the quaint language of this Constitution, it is stated that "the objects of this College are, to advance the Science of Medicine, and thereby to lessen Human Misery, by investigating the diseases and remedies which are peculiar to our Country, by observing the effects of different seasons, climates, and situations upon the human body, by recording the changes that are produced in diseases by the progress of Agriculture, Arts, Population, and Manners, by searching for Medicines in our Woods, Waters, and the bowels of the Earth, by enlarging our avenues to knowledge from the discoveries and publications of foreign countries; by appointing stated times for literary intercourse and communications, and by cultivating order and uniformity in the practice of Physick."

The Fellows of the College were selected from "persons of merit in the profession of medicine;" by direction "good moral conduct and decent deportment" became a *sine qua non* of eligibility.

One month after the College was founded, Benjamin Rush wrote "By assuming the name of a College, we shall first be able to introduce order and dignity into the practice of physic, by establishing incentives and rewards of character . . . our meetings will serve to correct or to improve our conduct. And if we are as chaste as we should be, in the admission of members, a fellowship in our College will become in time not only the sign of ability, but an introduction to business and reputation in physic."

Even as Benjamin of old settled his tribe in the fertile valley between Ephraim and Judah, so this Benjamin of a later day realizing, again to quote, that a "fellowship in the College would mean an introduction to business and reputation in physic," had faith that the area between the Schuylkill and the Delaware would prove to be "a fertile one," and his faith has been justified.

For almost a century and a half the Fellows of the College have followed the line of conduct laid down by the founders, and have striven to maintain a proper relation to the ethics of the profession, to assume a guardianship over the health, safety and morals of the community, and to lend their aid to medical effort, medical achievement, medical research and medical literary advancement.

True to the tradition of all physicians who approach their tasks with rightness of heart, force of character and straight thinking, the records of the Fellows in peace, war and pestilence are clean.

When the days from 1793–1798 were evil, and in Philadelphia yellow fever took its heavy toll of victims, they exhibited, as all physicians always have done in all emergencies, unselfish devotion to duty regardless of personal danger, even though their conferences were not always free from disagreement as to the etiology of this plague, which they disputed, as Hacket would say, with an acrimony of voice and gesture. The names of two of the Fellows of the College find place on "the illustrious bead roll of medical martyrs."

But it is not of medical effort in war and disaster that I should speak, for we are content to know that physicians in all lands have not failed to serve their governments in times of dire distress, and serving with fine fidelity, have written noble chapters

into the war histories and sanitary records of their respective countries.

A prime object of a College of Physicians or an Academy of Medicine is to enlarge our avenues to knowledge from the discoveries and publications, not only of the countries in which they exist, but from those of foreign lands—hence the need of establishing Libraries. The one in the College of Physicians in Philadelphia began in 1788 by a donation of 24 volumes from John Morgan. Slowly at first, but in later years swiftly, it has developed, and today its bookstacks and shelves contain 149,739 bound volumes, 26,797 Theses and Dissertations, and 163,786 pamphlets, at present being sorted according to subjects preparatory to binding. Among these volumes are many rare and valuable books, and of incunabula we possess 371 Titles and 255 Volumes, of which 240 photostat copies have been made. In the Journal Room the current medical literature of the day in all modern languages is well displayed and of easy access, and at this time the total number of such periodical publications received is 1203.

The Library of the New York Academy of Medicine, like the one to which reference has been made, is also a splendid storehouse of the gathered thoughts and the scientific records of medical men. I extend to you congratulations from the College I have the honor to represent on this fine achievement. Once more we are, indeed, "mighty partners," each glad of the other's success, neither envious of the other's praise.

These libraries, and I do not forget those of established and mounting reputation in other cities of the country, constitute interpretations of our steadfast endeavor to elevate the standard of medical achievement and enhance the value of literary effort. They have gained and maintained their allotted order of precedence among the best of the great medical book collections of the world. Deeply impressed as I am, and as all of us are, by the importance of such achievements, I am equally impressed by the necessity of cooperation, the necessity of working for the profession to which we have the honor to belong, in "perfect sympathy and uncontending equity."

Membership in the New York Academy of Medicine, and in the College of Physicians of Philadelphia, constitutes a patent of nobility, and carries with it a compelling responsibility,—the

responsibility which resides in organized medical effort with relation to community service in the widest acceptation of that term. Of course I know how great the endeavors along these lines have been and are, but I know of no reason why they should not be greater, more effective, and more satisfactorily carried on, especially as they are concerned with proper publicity through the channels best equipped to reach the largest audience. I hope the day is not far distant when on some occasion there may be a combined meeting of the New York Academy of Medicine and the College of Physicians of Philadelphia, and the whole matter discussed and rearranged.

And now I crave permission to join with the members of the Academy of Medicine of New York in saluting your guests from afar, and in avowal of our debt to them and to the medical and scientific achievements of the countries they represent—a debt we gladly acknowledge, a debt we cheerfully own. I am sure there is no member of our fraternity here tonight who, when writing up the credit page of the ledger of his life, does not smile happily at many entries he is enabled to make because of stimulation and instruction he has received in the laboratories and clinics across the seas.

Once more I thank you, Mr. President and members of the New York Academy of Medicine, for the pleasure of being here tonight, and I express the hope that the *entente* which has existed between the Academy of New York and the College of Philadelphia may remain unbroken.

I wish for you and for yours, wish for all of us, continued success. If we are loyal in thought and action, steadfast in effort, united in purpose and true to our ideals, we may face the future with confidence, and when our work is ended, the Scribe will enter on the record, in good black, enduring ink: "They did not shame their day."

REMARKS

W. S. Thayer
Baltimore

'Tis interesting to reflect that when we meet tomorrow at the beautiful new building of the Academy, the point of reunion for all students of medicine in this great community, it will be about the Library that we gather. The Library—the book—is still the common point about which students collect today, as centuries ago readers met about the old tomes chained to their shelves.

In the dark ages of blind reverence for authority, the manuscript, the book, the great compilation gathered about the aphorisms of an old master whose word was as revealed, was the foundation of all knowledge. The old master generally had been a keen observer and a wise man; the scribe too often was his servile worshipper, spinning a web of more or less valuable discussion about the kernel of the annals of the seer. Man who has always been a slave to the word, bowed down before the book. The tyranny of words is the most dangerous of human powers.

But there were men who dared to look for themselves; who dared to seek and who found; who dared to knock and to whom it was opened. These men, who had burst the confining bonds of the tyranny of words, to whom the search for truth was above the worship of authority, consigned to the written page their observations, their experience, their perceptions, their deductions, their opinions, sometimes in cryptic phrase, sometimes openly. Sometimes, as Michael Servetus, they gave their lives in payment. First, the anatomists, and then, as Allbutt has so well pointed out, the humble surgeon in the days when "sacerdotal, scholastic and military convention" had excommunicated surgery and made that false and pernicious schism in medicine in its broader sense which exists to the present day. The anatomist and the surgeon led the way, in times when the physician was indulging in vain dialectic as to the arm from which one should bleed, or were entering on what Huchard calls "The antimonial war of a century." Precious milestones, these works, in the annals of medicine, preserved for us all in libraries such as yours.

The physiologist and the student of pathology in its full sense followed, and with the improvement of the art of printing, medical literature, no longer restricted to dissertations on the canons of the master, became a record of the experience, the achievements, the constatations, if one may use the word, the hypotheses of the observer and the experimenter.

The birth one might almost say, of the art of diagnosis of internal disease, dating from the time of Auenbrugger and Laennec, placed the physician on his own feet, and began to wean him from his servile worship of the assertion of another. On the other hand rapidly accumulating contributions to medical science and art, printed in an increasing number of books and periodicals in all countries and in all languages, rendered the library more and more necessary to student and practitioner. Medical literature was no longer the record of authority; it became the record of achievement. The contributions of the last fifty years with the birth of an art of therapy based on scientific foundations are recorded in a literature increasingly voluminous.

But in this old world there are still vestiges of virgin forest. From the prostrate trunks of stately trees has sprung, alas, a literature which is as "a pestilence that walketh in darkness"—"a destruction that wasteth by noonday."

Have you ever happened on river or lake, to meet with the birth of a generation of "May-flies"? You are gazing peacefully at a lovely sunset, and of a sudden, the air is full of flying things—light, thin, long, squirming, green, almost translucent bodies with large, transparent, spotted wings. They come in clouds. In a moment you are covered. They are in your eyes, your ears, your nose, crawling down your neck and up your sleeves. You rush for cover, and as you go you tread on a crackling mass, and slip on the slimy bodies crushed under your feet as they carpet the deck. Once within, you may open neither door nor window, through which light no longer comes. Without, everything is covered and hidden by layers an inch or more thick.

Ephemeridae, they are sluggish in the morning, shriveled and dead by another night, but in their lifetime they have shut the light from your eyes, and hidden all that you would see, while the slime from their bodies, crushed as you pass, tangles your feet and hinders your progress.

Even so from the trunks of the felled trees of the virgin forest has arisen a substance by courtesy or convention called "paper" —a crying insult to the paper of the past! From this burlesque on paper there has burst upon us a cloud of "literature," not only general but medical, which obscures the sky. As by a generation of May-flies, we are submerged by medical ephemeridae. Advertisements of every imaginable sort, periodicals, columns in the daily press, carefully "written down" for the intelligence of a child, books. Books written to record the experiments, studies or achievements of the author? Oh! no. Books written on time, at the request of a publisher—compilations, in great part, and too often of little value. For medical literature today, no longer the literature of authority, too rarely the literature of achievement, is largely the literature of the publisher.

Smothered and blinded by this plague of ephemeridae, 'tis to the library again that we turn. As the sailor sweeps the deck, so the devoted librarian sorts and classifies and catalogues or sweeps away and burns this incubus of literature, so that we may find more readily the jewels buried beneath the ephemeral cloud.

That this great and growing library should now at last have a home fully worthy its present excellence and its future promise is of happy augury for the profession and public of this city and of the country at large.

This year, the year of the opening of your new building, is a medical anniversary of some importance. 'Tis the centenary of the death of Laennec, and of the birth of the second, the great edition of his book in which is set forth for the first time the real basis of pulmonary diagnosis.

A charming figure he must have been. The little, spirited, spiritual man, the architype of the Celt, with oval face, large, expressive eyes, long, humorous upper lip. Scholar and classicist, who at eleven had translated the first Georgic of Virgil into good French metre; poet, who at the same age was writing fables in no mean verse; lover of nature and of music; profound, devoted student with a deep reverence for those who had gone before; whose inaugural thesis was on the doctrine of Hippocrates whose works he had read and pondered in the original Greek. Anatomist who, at the very outset of his career, had described the subdeltoid bursa and the capsule of the liver. Pathologist, whose

description of peritonitis as a pathological and clinical entity, published in the earliest years of his medical life, is a classic; whose anatomical and clinical descriptions have never been surpassed. Inventor of the stethoscope. Author of "L'auscultation médiate" in which is set forth a method of clinical procedure which is a model for all time; which contains descriptions—in good part original—especially those of bronchiectasis and emphysema—of pathological changes in the lungs and of methods of clinical recognition of such changes which are the very basis of modern clinical medicine. Vigorous defender of his ideas, and spirited, sometimes bitter opponent of his contradictors. Brilliant, successful, wise practitioner and teacher; devout withal, and one of a group presented to the Pope, which was greeted by the memorable exclamation: "Medicus pius—res miranda!" ("A pious doctor; marvelous object!"). Dead at forty-four of that disease to which he had given so much of his life. Father of modern diagnosis.

Fancy for a moment that the angel Ithuriel, disturbed by the reports of the press and Sinclair Lewis's novels, were to dispatch Laennec to inspect the medical circles of New York, as some years ago he sent Babouc to Persepolis. Fancy the delight of the little master at the advances in our knowledge of disease, at that which bacteriological and serological studies have brought; at the applications of chemistry and physics to the medical sciences; at the possibilities of modern diagnosis; at the multitude of instruments of precision, the clinical thermometer, the ophthalmoscope, the laryngoscope, the use of the electric light in endoscopy in all its forms, the sphygmomanometer, the X-ray; at the growth of a therapy resting on a scientific basis; at the schools and libraries and hospitals such as you would show him today. But fancy for a moment his surprise, on entering a hospital ward—the little master in his swallow-tail and choker, his big stethoscope in its green leather case in his coat-tail pocket—fancy his surprise on entering the ward and finding himself face to face with a comely nurse with jaunty cap and bobbed hair, and plucked eyebrows, and slightly hectic cheeks, and pale nose, and curiously cyanotic lips, and shortish skirts; or on meeting, in the corridors, those visions of beauty with shorter skirts and *bobder* hair, whose very presence is a social service! Fancy what his feelings would be!

But no, rather let us refrain! There may be reporters in the room. I fear that with the Reverend Increase Mather, he might suspect that the devil, appearing as an angelical apparition, might lurk behind these alluring visions! He would have to learn, but he would learn in time, that they *are* "Angels of light" after all.

And then fancy his surprise at the language employed at the bedside—Laennec who always dictated his opinions and diagnoses to his students in Latin, "pour des raisons faciles à sentir," as he said. Latin! Gone in one short century! Latin—for so many hundred years the language of scholars. "What on earth" he would say "is the sense of wasting years in the acquisition of a few barbarous modern languages when in Latin all scholars may meet?" "That new word 'standardization' which rather offends my ear," he would reflect, "that new word 'standardization' seems to be a sort of semi-religious ideal of this strange new generation which is feverishly seeking the shorter way. But the one standard which has endured through more than fifty generations, Latin, the language of learning and of the church, this one standard they have thrown away. 'Tis passing strange!" But when some bright-eyed enthusiast told him of "Esperanto," he would understand. He would open his mouth, nod his head, tap his forehead and whisper to himself: "Ah mad!—all mad!"

And when he saw men looking at X-ray plates before they examined the chest, making pulmonary diagnoses, perhaps, from an X-ray plate—or blindly accepting the opinion expressed by the radiologist, without so much as seeing the plates, when he saw this, he would cry aloud: "But these are shadows that you are chasing! Listen, touch, smell, look! Look at your patient before you turn to shadows! From the shadow you may learn much, but would you interpret life and reality which are before you from shadows alone?"

He would marvel at the new therapy resting on scientific foundations. But when he, who was so careful and considerate of his patient, saw the advertisements of our wholesale chemists, and the manner in which their products are used by some of our colleagues on the mere basis of the conscienceless and preposterous statements contained in this literature; when he saw the amazingly reckless manner, the levity, one might almost say, with

which poisonous substances of all sorts, notably mercurial and arsenical compounds, are introduced into the circulation of the patient, he might ask himself what had become of the careful methods of clinical and pathological control which he had helped to initiate. He might indeed ask himself if the indiscriminate bleeding of his own day were not perhaps less harmful and equally intelligent.

Fancy his satisfaction at the coöperation shown in the study of diagnostic and therapeutic problems in our better hospitals and clinics; but fancy his surprise and uneasiness at the exaggerated subdivision of work in some clinics and some institutions, and at the frank and open speculation on the supposed fortunes of their patients by some physicians and surgeons.

And then when he read "Arrowsmith" and talked with the misanthropic individuals who are always with us ready to gloat over the iniquities of this world, might he not well have some anxiety as to the future of medicine? But when he met the leaders of medicine in New York today, when he went out into the rural medical societies and associated with the country doctor; when he met and communed with such men as are in this hall tonight, he would surely realize that the doctors of today are, in the vast majority of instances, fine, high-minded fellows, trying to do their best, associating and working together far more intimately and far more harmoniously than in his day.

And when his visit was done and his report was due he would have made by the best founder in the city, a beautiful model of the new quarters of the Academy of Medicine, "composed of all metals, earths and stones—the most precious and the most vile." He would lay it at the feet of Ithuriel, and he would say: "Your Serene Highness," for he was a courtier, and even angels are susceptible to adulation, "I have visited New York. I have found men and women, physicians and laymen, much as they were in my own day; as credulous, as prejudiced, as suspicious, as covetous as we were. They have the same old faults, the same old passions, the same old prejudices. They live in a country which boasts much of its freedom, and sometimes they seem to me hardly so tolerant as we were a hundred years ago. But collectively they are responsible for this beautiful thing and all that it represents, infinitely more beautiful and beneficent than any-

thing that existed or could have existed—than anything we could have dreamed of in my day. Shall we break this lovely thing, because all that is in it is not gold and diamonds? Shall we condemn all this beauty and all this progress in the science and art of medicine, all this spirit of coöperation among physicians and surgeons because, after all, it is the work of men and women with all their human frailties. In your own words, 'Si tout n'est pas bien, tout est passable,' and so much more so than in my day. May it please your Highness, if I might be allowed to suggest such a thing, may I dare to hope that, in another century, your Serene Highness might consider the possibility of sending me back again? And may I be justified in expressing the hope that your Highness will assign me to The New York Academy of Medicine; and that if it be not too much trouble, your Highness might arrange to send George Stewart with me to preside at the dinner?''

OPENING EXERCISES AT THE NEW BUILDING

DEDICATORY PRAYER

REV. DR. HENRY SLOANE COFFIN

O God, who dwellest not in houses built by hands, but revealest Thyself in the lives of men and women who serve the world, hallow with Thy blessing this building reared for the fellowship of those who minister to the health of bodies and of minds. Let Thy blessing rest upon all who planned and all who labored to erect this edifice, and upon those who shall direct its use. Foster here both the science and art of physical well being. May those who meet within these walls help each other to understand the causes and cure of disease, to be skilled in safeguarding and increasing public health, and to aid mankind to attain greater vigor for their work and play.

Grant that this Academy of Medicine rich with the memories of physicians and surgeons honored and loved in their generations, may uphold the standards and traditions of a high calling, and inspire its members with open-mindedness to truth, diligence

in study, courage in the discharge of duty, reverence for those they serve, and unselfish devotion to their welfare. In the midst of this wealthy city, enable these servants of humanity to remain untainted by sordid ideals, and by their life and work, to assist in leavening the community with the spirit of the Son of man who came not to be ministered unto but to minister, and who set men free from ills of the flesh and spirit that they might share His own abundant life.

Amen.

THE SERVICE OF THE ACADEMY

SAMUEL A. BROWN

President, New York Academy of Medicine

In my contact with patients and friends, I find that the Academy of Medicine is not well understood. They say, "Oh, yes, the Academy! We presume it is connected with a medical school, or it is part of some hospital. We know that you have a library but you can't possibly need a big building for a library."

Therefore, I thought that this afternoon I would present to you some of the activities of the Academy, in order that the functions of the Academy might be better understood by many of our friends.

The Academy was organized in 1848 by a group of men who were leaders in the profession, who had in mind the betterment of the practitioner of medicine, to the end that he might render better service to the public. They devoted their energy to the advancement of medical education, to the scientific development of their members, and to all matters relating to public health.

As time went on they organized regular scientific meetings, which have been continued until the present time, and at these meetings the best minds of the country are requested and invited to present the results of their experience, so that the members of the Academy may be kept abreast with medical science.

Of course, it would not have been complete without a library. The library was started in the time of Dr. S. S. Purple, the presi-

dent, when the Academy was at 12 West Thirty-first Street. It has grown from a very small beginning, until today it is the third largest medical library in the world.

The privileges of the library and the facilities of the library are not limited to the members and fellows of the Academy. They are available to medical students, to students in sciences allied to medicine, and to the public. In fact, this library occupies a position in relation to medical literature similar to that which the Public Library occupies in relation to general literature.

More recently, there has been created a Bureau of Clinical Information. This Bureau now provides information about hospitals, clinics, and postgraduate courses of various types to physicians from all parts of the country. Hundreds of physicians now come to the Academy during the year from out of town and receive advice as to the type of refreshing courses and postgraduate education which they desire to undertake. The Bureau is also able to advise foreigners in regard to courses in this country, and to advise our medical men and students of the various postgraduate courses available in Europe, thereby saving them much time in making their contacts when they go abroad.

The Academy has also devoted much time to matters of public health. This activity was graciously referred to by the Mayor at the dinner last night.

In the early days of the Academy, during the decade of 1850–1860, the Academy took a most active interest in supporting the agitation for the organization of a Board of Health for the abatement of the evil of feeding cattle within the city limits, and other such matters. Early in this century, the Academy successfully supported a movement for the transfer of the State Quarantine Service in the Borough of New York to the Federal Government.

In 1911 the Academy organized a special committee on public health, hospitals, and budgets, and this committee has actively continued its interest in these matters as they affect the city. Through the influence of this committee, now entitled the Committee on Public Health Relations, the Academy has been successful in bringing about the abandonment of several dispensaries and other institutions no longer needed; it has been able to persuade members of institutions to change their policies in order to better

them; it has published several books and pamphlets which have had an important bearing on the hospital situation in New York.

The organization of the Dispensary Development Committee was a direct result of the Committee on Public Health Relations.

Although the Academy has not taken an active part in securing new legislation, it has frequently lent its advice and influence for the modification of many laws affecting the practice, holding itself somewhat aloof from the political aspects of the situation. This may or may not be a wise thing to do.

The building of the Academy has been a meeting place for the societies of the county and the state of New York and a score or more other societies, thus bringing under one roof nearly all of the medical societies and activities of the city, especially of the Borough of Manhattan, promoting a mutual understanding, and advancing the interests of the profession.

The Academy has provided offices for the Society of Widows and Orphans of Medical Men, the New York Physicians' Mutual Aid, and many other organizations.

The Academy has also rendered a service to the community and to the medical profession by its constant endeavor to maintain a proper standard of ethics among the members of the medical profession. Although ethics and professional courtesy are frequently misunderstood by the laity, their existence is primarily for the benefit of the patient.

I have often heard this building spoken of as a beautiful monument to the profession. Personally I like to think of it as a workshop, for in years to come it will be the output of this workshop which will be carefully criticized when the justification of this large investment is to be considered.

THE BUILDING OF THE ACADEMY

ARTHUR B. DUEL
Chairman of the Building Committee

There is no more striking human characteristic than the desire to own and maintain a home. The American has been possessed with this same desire in the same way as has existed in other civilizations. Man desires a home primarily for shelter for him-

self, his wife and his children. This is his primary desire, but relatively few appreciate the mental, moral and spiritual qualities that are so commonly developed in the home. This home instinct has been sadly impaired by the enormous growth of our urban interests, disrupted by the facility of modern communication and made increasingly difficult by the extravagance and congestion of our city life.

One hundred years ago in this country the home was practically the only meeting place for social intercourse, and there the members of the family heard discussed, by their elders, the various problems of the day—politics, religion, education and all matters pertaining to community life. It is therefore natural that groups of individuals are prompted to seek a home or meeting place in the present day, when homes are no longer large enough, except in rare instances, to permit free discussions and to provide facilities for social intercourse.

Eighty years ago a group of physicians living in New York City were strongly urged of the need of bringing together from time to time the leaders in the medical profession in the fields of practice, teaching and research for the purpose of taking counsel with each other; and for advancing the practice and art of medicine; and for the promotion of public health. The leader of this movement was Dr. John W. Francis, a dominant figure in those days, whose efforts were successful in bringing about the organization of the New York Academy of Medicine. The majority of the doctors who were interested in the formation of the Academy were active members of the Society for the Widows and Orphans of Medical Men, which organization still exists and has offices in the present building of the Academy.

The search for a home began immediately and then it could only serve the purpose of providing temporary housing for the first-born child, namely—the promotion of the art and practice of medicine by the holding of meetings and conferences. These meetings were held, first at the Convention Hall on Wooster Street, then at the Lyceum of Natural History, later at New York University and the last temporary quarters were at the College of Physicians and Surgeons.

The search for a permanent home continued and it was finally possible for the Fellows of the Academy and their friends to

secure what we would now consider an old-fashioned, high-stoop, brownstone home at 12 West 31st Street which was opened in 1875.

The desire of the Fellows to render more service to the profession soon prompted them to organize a library and to subscribe to the current medical journals so that the Fellows might keep abreast of the progress of medical science. The most active Fellow in this movement was Dr. Samuel Smith Purple who made the first contribution to the library as soon as the new home of the Academy was opened on thirty-first street. This library was the second child of the Academy whose growth and development have been prodigious.

The Academy increased in numbers. The meetings becoming steadily larger there was an urgent need for a larger room than the ordinary parlor of this old-fashioned building and, as a result of the activity and generosity of Dr. Abram Du Bois, a meeting room was built in the rear of the building which was named "Du Bois Hall."

Continued growth of the library and the increasing numbers of the Fellows made it imperative to have larger and more commodious quarters. As a result of continued effort, during 1887–88, a new building was constructed at 17 West 43rd Street which, at the time, seemed to fulfil all the immediate and future needs of the Academy. Its spacious meeting hall was made possible by a large gift from Mrs. Seline B. Hosack in memory of her husband, Dr. Alexander Eddy Hosack, and after whom the hall was named. In appreciation of the memory of Dr. Abram Du Bois the next largest meeting room in the new building at 17 West 43rd Street was designated "Du Bois Hall."

This building proved commodious enough to permit two more children to develop lives of activity and usefulness within its walls—the Public Health Committee and the Bureau of Clinical Information. The second child, however, continued to grow so that the book stack was soon found to be too small for future development of the library. Not only had the stack become overcrowded but also the reading rooms, for it was the only public medical library in the City of New York. The organization of the Kings County Medical Library took place some years later.

As early as 1909 the Library Committee called attention to the

urgent need for more room for books and more room for readers. During the year 1909 a scheme was developed for the construction of a new building at Seventh Avenue and Fifty-eighth Street and an earnest effort was made to secure additional funds. For the construction of the building the Academy Extension Fund was created and, during the next few years, this increased to over $130,000 in 1911. However, this was insufficient to make it possible to consider seriously the construction of a new building. In 1911 plans were drawn for the alteration and additions to the existing building at 43rd Street. A lot was purchased at 15 West 43rd Street and an additional lot, which was subsequently sold, was purchased in the rear on Forty-fourth Street.

It soon become evident that it was extremely difficult to remodel the building on account of the fact that the stack was a fixed unit and could not be enlarged without practically a complete reconstruction. As funds in sufficient amount were not available, the plan was again postponed.

The continued growth of the library and the constant recommendations of the Library Committee for increased space urged the trustees to reconsider the possibilities of making additions to the building at Forty-third Street, and serious consideration was given to this plan in 1917. However the matter had to be left on the table on account of the war. Nearly half of the Fellows were engaged in some form of war service. The matter was taken up again in 1919 and working drawings were prepared for additions and alterations to the old building. The Fellows were never fully satisfied with this proposal as it did not permit sufficient room for later expansion; so postponement again was the order of the day.

At this time Dr. Bryson Delavan, with a clear vision of our needs, presented a plan for an ideal structure which stimulated great enthusiasm and which, I believe, was the real inspiration for this larger and better Academy.

In 1921, the picture was entirely changed when Dr. Henry S. Pritchett, President of the Carnegie Foundation and the then Acting-President of the Carnegie Corporation, saw the need of a fine fire-proof building for our priceless library, recognized the value of the services rendered by the Academy to the medical profession and thence to the public, and the possibilities of its

increasing usefulness and service. Under his kindly auspices conferences were held with the Carnegie Corporation and the Rockefeller Foundation and, in 1922, the Carnegie Corporation voted a grant of $1,000,000 for the purpose of constructing a new building for the Academy.

During the summer of 1922 sketches were made of building sites on East Fifty-seventh and Fifty-eighth Streets and also for Sixtieth Street and Park Avenue, and it was during the spring of 1923 that the Academy engaged in an active campaign for funds for a new site and increased endowment. This effort resulted in $206,161.64 being subscribed by 1,313 Fellows of the Academy. In addition, various friends of the Fellows contributed $324,922.78. Of this latter sum there was included a gift of $100,000 from Mr. George F. Baker, $50,000 from Mr. James B. Ford, $50,000 from Mr. Edward S. Harkness and $50,000 from Mrs. Helen Hartley Jenkins.

The trustees in this year purchased a lot at the corner of Sixtieth Street and Park Avenue for which the sum of $754,000 was paid and preliminary drawings were made for a building on this site, the plans for which were matured during the summer of 1923. The plans called for a building which would have cost $2,225,000 and the expense would have been large, due to the fact that, on a lot 100′ by 120′, it was not even practicable to build the stack anywhere except within the main building.

It should be emphasized that the limitations of growth forced the Academy to move from 31st Street and the limitations of the growth of the stack forced the Academy to move from 43rd Street, and although the stack proposed at Sixtieth Street was far larger than the immediate needs of the Academy, yet it was a fixed unit and did not permit of any future expansion.

An attempt, however, was made to see what type of building could be constructed for a million dollars and it was then thought that, with that sum of money, a building could be erected which would be only a little larger than the existing building at Forty-third Street. After this attempt had been made it was decided by the Academy that a larger building would have to be constructed on a larger lot and that elasticity must be provided for the expansion of the stack which already was bulging with volumes—a medical library second only to the Surgeon General's

Library in Washington—and for future growth of the Academy's other activities. The Academy accordingly determined to sell the lot at Sixtieth Street, which was sold in 1924 for a million dollars, and the present site was purchased in the same year for $225,000, which was subsequently added to by the purchase of a lot adjoining on East 103rd Street for $17,500. The selection of a site was not easy and it will not be necessary to consider any detail of the various considerations of sites that were made during the winter of 1924. It suffices to say that over one hundred sites were considered, many of which were inspected by the trustees, and with the exception of several small-sized, undesirable lots, none were available for a price of less than half a million dollars but the one selected for the present site. During the summer of 1924 the architects, York and Sawyer, prepared a series of schemes. The trustees determined upon the present plan and building operations were undertaken in the spring of 1925. The corner-stone of the present building was laid on October 30, 1925, and today the building is completed.

It is now seventeen years since the first discussions were undertaken which have led to the culmination of our ardent desire to find a home which could be permanent and satisfactory for the needs of our family. The opportunity is offered to inspect the building, which has been designed primarily for utility, but with the same desire that exists in every happy family, to preserve its mementos and treasures, to embellish the home insofar as funds will permit, and to have it useful, simple, dignified and beautiful. We feel that this in a large measure has been accomplished. With full realization of the reasons why the Academy was forced to leave Thirty-first and Forty-third Streets, the building has been so constructed that the stack is a separate unit, which may be increased not only upward but also to the side, if future needs require it. The main building is also so constructed as to permit the addition of a number of stories. The auditorium extension permits the addition of several stories above it. Who can visualize the future? We have not tried to visualize what the Academy may be or what its needs may be fifty years from now, but we have visualized insofar as is possible and have produced a building which permits of expansion for every possible need that may eventuate.

The construction of this beautiful building could not have been possible had it not been for the enthusiasm and vision of Dr. Henry S. Pritchett: nor could it have been completed without the enthusiasm of Dr. Pritchett's successor as President of the Carnegie Corporation, Mr. Frederick P. Keppel, who had also been convinced of the usefulness of this growing institution and, as a result, an additional gift of $550,000, making a total of $1,550,000, was contributed by the Carnegie Corporation. Nor would it have been possible to plan and develop the additional educational facilities of the Academy, included in the extending activities of the Library, the Bureau of Clinical Information and the Committee on Public Health Relations, without the enthusiastic support of the Rockefeller Foundation which has promised the sum of $62,500 annually and, with the capitalization of that sum in the near future, of $152,000—and we here record again our everlasting gratitude to Dr. George E. Vincent and Mr. Edwin R. Embree, of the Rockefeller Foundation, for the interest they have taken in our behalf.

To the members of the Library Committee who served since 1909 is due no small measure of praise for their constant desire to find fire-proof, permanent and commodious quarters for the library. And to the Board of Trustees and members of the Academy whose interest and patience during this long and trying period have been a striking example of service to a noble cause. I record also my gratitude and appreciation of the earnest attention and interest given by my colleagues on the Building Committee. Finally, I am convinced that no such building combining such rare qualities of usefulness and beauty, could have been produced without the painstaking devotion to detail and careful study of our every need which has been given to it by our Director, Dr. Linsly R. Williams. To him perhaps more than to all others the credit of the working efficiency of this building should be given. Through his discriminating effort in coöperating with the service of Messrs. York and Sawyer and their illustrious partner, Mr. Louis Ayres, who has carried the brunt of the work and whose genius has produced this monumental, beautiful, soul-satisfying edifice, no measure of praise could be too great. The construction of the building, its detail and its beauty, are largely due to him, but great praise is due to Messrs.

Otto and Robert J. Eidlitz who have so successfully constructed the building under his direction. The furnishings and decorations have been the result of a combination of the artistic ability and skill of Mr. Louis Ayres and Mr. Barnet Phillips. During this process of construction there has been no rift in the lute—all have worked together with their shoulders to the wheel for the production of a thing of beauty and a joy forever.

It is with mingled feelings of pride and pleasure that we, of the Building Committee, turn over today to the use of the members of the Academy of Medicine, and to the public, the result of our most earnest endeavor.

ELECTION OF HONORARY FELLOWS

CITATIONS

EDWARD WILLIAM ARCHIBALD—Professor of Surgery, McGill University.

Eminent writer and skilful operator. A surgeon imbued with the pioneer spirit of discovery in the realm of thoracic surgery. Stimulating teacher, cultured gentleman and friendly scholar.

HARVEY W. CUSHING—Surgeon-in-Chief, Peter Bent Brigham Hospital.

Fertile contributor in the field of research; eminent writer; skilful operator in a hazardous and relatively uncharted region; stimulator of youth to high surgical ideals.

GEORGE E. DE SCHWEINITZ—Professor of Ophthalmology, University of Pennsylvania.

Prolific and forceful writer in his chosen field; successful as a clinician and practitioner, which has brought him a well-deserved international reputation; widely recognized and appreciated for his scholarly learning and charm of address, whose combined qualities have forwarded the teaching and practice of ophthalmology in this country.

THEOBALD SMITH—Director Department of Animal Pathology, Rockefeller Institute.

Profound student of pathology and bacteriology, particularly in the field of diseases of domestic animals. His contributions to our knowledge of bovine tuberculosis, cattle fever and swine cholera have been epoch-making. His sound judgment and rare ability have placed animal pathology upon a sound foundation and have brought him a well-earned international reputation.

WILLIAM SYDNEY THAYER—Professor Emeritus of Medicine, Johns Hopkins University.

Indefatigable worker, profound scholar in many fields. Clinician, historian and teacher; wise counselor and friend to student and patient; recognized both here and abroad for his important contributions to clinical medicine.

JOHN M. T. FINNEY—Professor of Clinical Surgery, Johns Hopkins University.

Outstanding in the profession as a teacher, writer, operator and originator of surgical methods; tactful and successful director of the enormous surgical personnel in the A. E. F.; a Christian gentleman endeared to all with whom he has come in contact.

ROBERT BARANY—Professor of Otology, Rhinology and Laryngology, Upsala University.

Distinguished Viennese otologist; renowned for his original research on the function of the oticlabyrinth and the cerebellum, in their relation to the static sense; preeminently skilful in the surgery of the ear and brain complications of otitic origin.

CHEVALIER JACKSON—Professor of Laryngology, Jefferson Medical College and Professor of Esophagoscology and Broncoscology, University of Pennsylvania.

Eminent laryngologist; indefatigable investigator and worker whose brilliant efforts have brought invaluable contributions to his field of medicine. His genius has made him internationally honored amongst his confreres and beloved by a host of grateful patients whose lives have been saved by his great skill.

VITTORIO PUTTI—Professor of Orthopedics and Medical Surgery. Instituto Rizzoli.

Skilful as a surgeon and appreciated for his humanitarian care of patients. His researches and his original work in the realm of orthopedy and his practical application of new methods have astounded the entire medical profession and brought to him the renown which he well deserves.

MARIN THEODORE TUFFIER—Physician, Retired.

A pioneer in the domain of surgery, notably thoracic surgery; eminent teacher; one who has done much to cement a cordial feeling between the representatives of the profession in France and America.

JOSEF JADASSOHN—Professor Dermatology and Syphilology, University of Breslau.

Favorite and most gifted pupil of Neisser and eventually his successor. Teacher of many outstanding dermatologists. There is no branch of his specialty in which he has not written an authoritative word. Unquestionably the leader in the field of dermatology.

SIR CHARLES SHERRINGTON—Waynflete Professor of Physiology, Oxford.

Fellow and past president of the Royal Society of London; honored and decorated at home and abroad for distinguished investigations in the field of physiology, and known throughout the civilized world for weighty contributions to the knowledge of the functions of the nervous system.

HENRY HEAD—Physician, Retired.

His researches have illuminated all branches of neurological medicine. To his profound and patient investigation we owe almost all of the knowledge of the sensory paths in the nervous system, and but lately he has notably aided our comprehension of the mechanism, structural and psychical, of speech.

JOHN JACOB ABEL—Professor of Pharmacology, Johns Hopkins University.

Chemist of profound ability; the discoverer of epinephrin in the adrenal glands; the leader of American pharmacology; renowned throughout the world and beloved by all who know him.

FRIEDRICH VON MÜLLER—Professor and Director of Medical Clinic of Munich.

Careful investigator in varied fields of clinical medicine; vigorous and forceful teacher whose clinical knowledge and skill have placed him in the forefront of all teachers of medicine; whose reputation has brought to him students from many lands to whom he has become endeared as a benefactor.

GEORGE FERNAND WIDAL—Professor of Medical Faculty, Hospital Cochin.

Eminent clinician and scientific investigator to whose researches on the diagnosis of typhoid fever and the function of the internal secretions the medical profession of the world owes a lasting debt of gratitude.

SIR GEORGE NEWMAN—Chief Medical Officer, Ministry of Health, London.

Foremost in the field of preventive medicine, promulgator of many reforms for protecting the health of school children; wise health administrator; eminent scholar whose prolific contributions in the field of preventive medicine have entitled him to recognition as the world's most prominent health official.

FRIEDRICH NEUFELD—Director Prussian Institute of Infectious Disease.

Follower of the illustrious Robert Koch and director of the laboratory for infectious diseases in Berlin, whose contributions to the field of immunology have given him an eminent place among bacteriologists of the world.

CARLOS CHAGAS—Director Oswaldo Cruz Institute.

Eminent pathologist whose studies in tropical medicine have contributed to the eradication of many diseases in the southern continent of America.

CHARLES JAMES MARTIN—Director of Lister Institute, London.

Physiologist and experimental pathologist; prolific writer whose contributions in the fields of physiology, biology and pathology have advanced the sciences to a higher plane. Recognized particularly in Britain and abroad for his investigations into anti-typhoid inoculations and the plague.

FRANK BILLINGS—Skilful as a clinician and appreciated for his humanitarian care of patients. His early researches in auto-infection awakened the medical profession to a new outlook to clinical medicine. Teacher, writer and promulgator of many medical administration reforms entitle him to the universal respect of his colleagues.

GEORGE DOCK—Physician to Los Angeles General Hospital. Clinician and teacher who for years inspired large numbers of students in medicine, earned a recognition of many followers. Among the first of the earlier investigators in the field of medical chemistry, stimulated scores of others to pursue researches in this field.

ABSTRACTS OF PAPERS PRESENTED AT SECTION MEETINGS

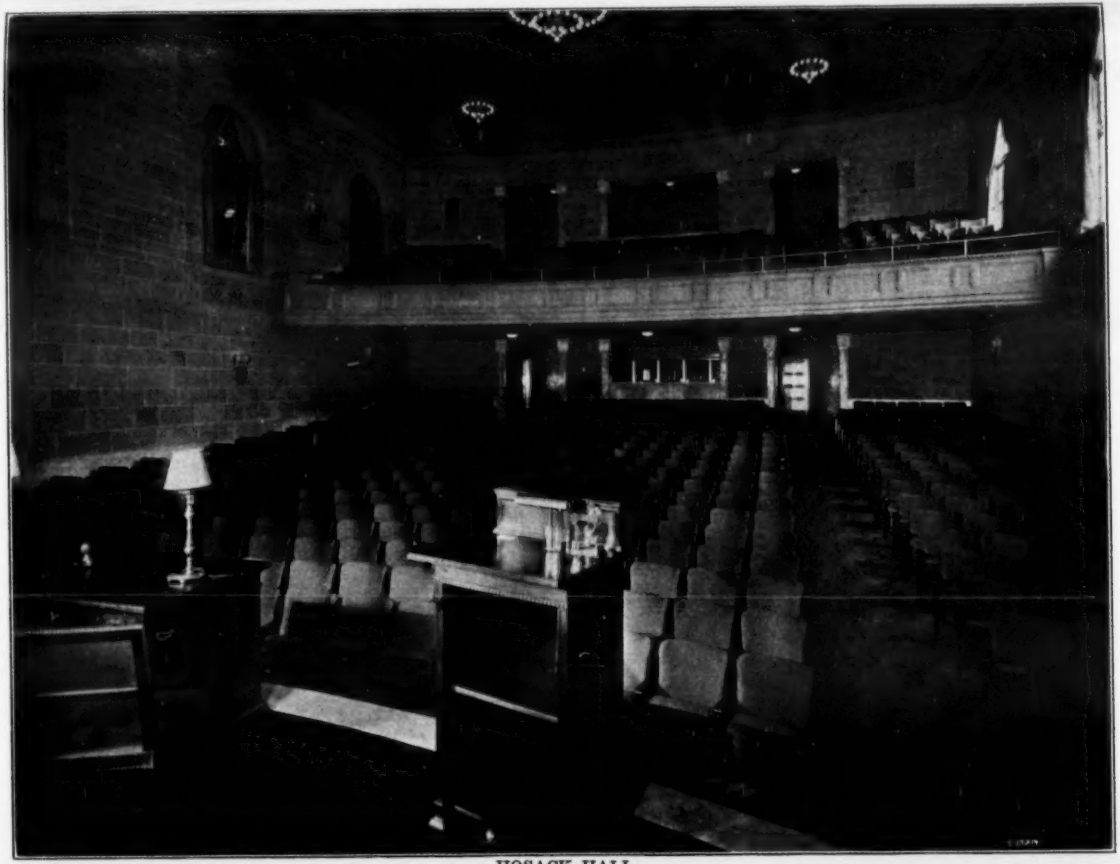
Section of Ophthalmology, November 15, 1926

PROTECTING THE EYE BY REFLECTING GLASSES

JOSEPH IMRE

Hungary

The author presented a most interesting paper of an original character. He classified protecting glasses into three parts. 1. The ordinary colored glass. 2. Those best for ultraviolet ray. 3. Those that best protect against the infra red ray. He described in detail a new kind of glass which incorporates in a substance, platinum, gold or silver. He presented various types of these glasses in various shades. The principle of these glasses, as the title explains, is by the principle of reflection, not absorption. To those interested in the subject, Dr. Imre's paper will be published in full in the *Archives of Ophthalmology*.



HOSACK HALL

Section of Surgery, December 3, 1926

FOREIGN BODIES IN THE INTESTINE

LOUIS CARP

The literature of foreign bodies in the intestine is replete with interesting and unusual cases. Ingested foreign bodies, varying widely in number, size, and character, may travel through the intestine, a distensible tube of comparatively small diameter, causing repeated mechanical insults to the intestinal wall without producing symptoms or permanent tissue damage. The pathological physiology and the mechanical factors to explain these phenomena will be briefly considered later.

From 1915 to 1926 there have been admitted to the Presbyterian Hospital fifty-four cases of proven foreign body in the intestine. Many different types of foreign body were encountered and most of them were evacuated without untoward symptoms. From an analysis of these cases the following summary may be given:

1. The foreign bodies were swallowed accidentally or by those who knew no better.
2. The largest number (72 per cent.) occurred among babies and children under ten years of age.
3. The cases were about equally divided between the sexes.
4. Dull objects were slightly preponderant.
5. Among sharp objects, pins were preponderant.
6. Most of the foreign bodies (85 per cent.) were passed.
7. Of the sharp foreign bodies only two (15 per cent.) perforated the gut.
8. The minority of the cases that pass foreign bodies have symptoms or signs.
9. It takes a sharp foreign body a little longer to pass than a dull foreign body.

The tonic, peristaltic, and rhythmic segmental contractions of the intestine tend to overcome the anatomical bars to the progress of a foreign body. They are the duodenum, ileocecal region, lumen of the appendix, junction of cecum and ascending colon, and the flexures and haustrae of the large intestine, including the rectal ampulla and the crypts of Morgagni.

The presence of a foreign body in the intestine may be due to migration from a neighboring organ, cavity or extremity, to accidental or deliberate ingestion, or to introduction through the anus into the rectum. Deliberated ingestion may result from an act of insanity, a dare, a habit or medicinal therapy. Accidental swallowing of foreign bodies is by far the most common. This occurs in careless and rapid eating or if a foreign body is placed in the mouth temporarily it may be swallowed through absent-mindedness or a sudden inspiratory effort.

Although almost any type of foreign body may gain access to the intestine, those most frequently found are metal, bone, fruit pits, glass, hair, wood and cloth. Deliberate ingestion, usually accomplished with less chocking and pain than accidental ingestion, accounts for the remarkable size of some of these bodies.

What happens to the foreign body in the intestinal lumen and the reaction that may be produced in the intestinal wall constitute a most important aspect of this entire subject. Many are recovered in the same condition as before ingestion, but the intestinal juices may cause a metal object to break in two; or foreign bodies may be surrounded by some natural protective coat consisting of mucous, unabsorbed food or feces. Glass is usually rounded off by the digestive juices.

Although nature's protection facilitates the passage of most foreign bodies, symptoms frequently develop from obstruction, traumatism to or perforation of an organ. Thus we may find a peritonitis, peritoneal abscess, or fistulous communication between intestine and intestine, or between intestine and some other organ, such as the bladder. Other foreign bodies that are thin and sharp may perforate the gut, producing few or no symptoms, and travel through the peritoneal cavity or along muscle planes, or into a large blood-vessel. Such a procedure usually takes a long time. Many cases are operated presumably for appendicitis, in which a foreign body in or near the appendix was found to be the real etiological factor.

We have confirmed experimentally some of the observations made by Exner in 1902. The intestinal mucosa reacts to a light prick or stroke by the formation of a temporary area of anemia at the point of contact followed by a retraction of the mucosa, which persists for from five to fifteen minutes. In a large series

of experiments Exner further found that pointed foreign bodies are passed with heads isoperistaltic in a ratio of 7 to 3 that are passed with points isoperistaltic. This means that the intestine has a tendency to pass pointed foreign bodies blunt end forward.

Most foreign bodies in passing through the intestine produce no symptoms. When symptoms occur the diagnosis must be made on a careful history and a physical examination followed by the various laboratory aids, especially the X-ray. Such symptoms may be summarized as follows:

1. A mild cramp when they pass through the intestine naturally.

2. A cramp or pain in one spot when they pass through slowly.

3. Diarrhea and mucous or blood in the stool from irritation of the intestinal mucosa.

4. Intestinal obstruction.

5. Pain, tenderness and constitutional symptoms from inflammation and pressure necrosis.

6. Perforation.

Treatment. The prophylactic treatment is obvious; to eat carefully and to avoid placing foreign bodies in the mouth. The immediate course to be pursued following the ingestion of a foreign body is non-operative and expectant. The size and the nature of the foreign body, the condition of the intestine itself, and the possibility of the localization of the body will decide the wisdom of a subsequent radical procedure. The fear and the actual danger of the potential harm from the foreign body are never to be discounted. The unexpected may occur at any time from an apparently innocent foreign body. Close observation and immediate operative therapy when the symptoms so warrant are of paramount importance. On the other hand, we have shown by statistics and by experimental work that there is a natural tendency for the spontaneous passage of foreign bodies without untoward symptoms. To help nature, two factors are essential: the prevention of intestinal hypermotility, and the ingestion of such material as might aid in the formation of a protective coat around the foreign body. The idea of hastening the exit of a foreign body by the use of a cathartic is, I think, a mistake. Powerful intestinal contractions diminish the calibre of the in-

testinal lumen and may prevent rather than enhance progress. Further, a powerful contraction may drive the foreign body into or through the intestinal wall. Bran, agar-agar, wisps of cotton, pultaceous and stodgy food leaving a residue, such as oatmeal, vegetables, figs, raisins, et cetera, with the addition of a lubricant such as mineral oil, would help to surround the foreign body with a protective coat. When present in the large intestine longer than expected, barium or oil enemata may be used. If symptoms are produced when a foreign body gets to the rectum it is better to remove it with the finger or proctoscope. Ambulatory treatment is not contraindicated, although rest is to be desired.

Conclusions

I. Most foreign bodies of the intestine are ingested accidentally and in the majority of cases are evacuated spontaneously regardless of their size, shape, material and number.

II. Trauma from intestinal foreign bodies is guarded against by the protective mechanism of the intestinal wall which produces concavities with muscular boundaries on the mucosal aspect at the points of contact (Exner). This causes an increase in diameter of the intestinal lumen which facilitates propulsion forward of the foreign body by peristalsis and movement of intestinal contents.

III. Foreign bodies, pointed at one end, have a tendency to pass through the intestine with point antiperistaltic and to be evacuated blunt end forward. In this position the point is less likely to impede the progress of the foreign body through the intestinal canal and consequently foreign bodies with blunt end forward will be evacuated more quickly than those with point forward.

IV. A foreign body may travel from the intestine into another organ or into the peritoneal cavity and from there into muscle planes, with little or no symptoms. When late symptoms occur they are referable to the other organ or tissue involved.

V. Conservative treatment of intestinal foreign bodies is indicated in the large majority of cases as shown by statistics and experimental work. Careful observation, rest, and food or any substance leaving a large intestinal residue may help the successful passage of a foreign body. Catharties are interdicted.

VI. Obstruction or acute perforation of the intestine or impaction of a foreign body in its wall demands operative therapy.

CHILLS IN ACUTE APPENDICITIS

RALPH COLP

The incidence and significance of cills in acute appendicitis are still obscure. In a series of 2,841 cases of acute appendicitis admitted to the wards of the Mt. Sinai Hospital, New York, 6.8 per cent. presented this symptom before operation. The degree and extent of the gross pathology present at the time of operation seemed to have little influence, or to bear any relationship to the occurrence of chills. Seventy per cent. of all rigors occurred within the first twenty-four hours. Cases presenting a chill later seemed associated with abscess formation, or the onset of a general peritonitis.

The combined mortality of cases with chills was 6 per cent., the date rate of those without was 5.1 per cent. In cases of gangrenous appendicitis with chills, the mortality apparently increased from 2.6 per cent. to 9 per cent. The cause of death in four of these six cases was attributable to pylephlebitis.

In 181 in which a single chill was recorded, seven died, two from pylephlebitis, a mortality of 3.7 per cent., which was no higher than that for all cases without chill. In eleven cases in which chills were multiple before operation, five died from pylephlebitis. Pylephlebitis in patients with multiple chills is almost a foregone conclusion, and certainly in those cases a ligation or resection of the ileocolic vein should be done before the actual appendicectomy.

Post-operative chills, when none have been noted before, are extremely rare; it was noted in three cases, two of which developed a fatal suppurative pylephlebitis.

Combined Meeting of the Section of Neurology and Psychiatry, and the New York Neurological Society, December 7, 1926

HIGH CERVICAL LESIONS IN THE GUISE OF COMBINED SYSTEM DISEASE

E. D. Friedman

The diagnosis of a level lesion in the cord seldom offers serious difficulties, although we may not always be certain of the nature of the pathological process which produces the level signs. We have had occasion, however, to observe two cases of high cervical cord lesion, in both of which the early signs pointed to combined system disease. It was only later in the course of their development that the evidences suggestive of a level lesion became manifest.

The first patient was a fourteen-year-old schoolboy who complained first of increasing weakness of the lower limbs. Soon afterward the upper extremities also showed loss of power. The patient noted shortness of breath and cardiac palpitation. There was incontinence of urine at times. Priapism occurred at intervals. He was admitted to Mt. Sinai Hospital in July, 1920. He presented labored breathing, tilting of the head with the chin directed to the left, nystagmus in the horizontal plane, motor weakness, more marked on the left, disturbances in joint mobility and vibratory sense in all four extremities, astereognosis in both hands, ataxia with tabetic athetosis in the hands, general exaggeration of the deep reflexes, diminution of lower abdominals, bilateral Babinski, spastic-ataxic gait, a positive Romberg sign and cerebellar phenomena, more marked on the left.

The general medical status showed no abnormalities. On one occasion sugar was found in the urine. Spinal fluid revealed no abnormal findings. Blood Wassermann proved negative.

The case was considered a cross between the Friedreich and Marie forms of ataxia.

He was discharged from Mt. Sinai Hospital on August 20, 1920. About four months later, he was admitted to Montefiore Hospital with the same complaints, in an aggravated form, however. The pyramidal tract signs had become more pronounced.

He now exhibited cross-legged progression. In addition to the disturbances in posterior-column sensation and the cerebellar manifestations, he now presented an area of hyperaesthesia in the distribution of the upper cervical segments and tenderness over the upper cervical spine. Below this hyperaesthetic zone, there were mild disturbances in pain and temperature sense. He rapidly developed the signs of a transverse lesion of the upper cervical cord and succumbed.

The autopsy findings were as follows: In the region of the foramen magnum, the upper cervical cord was found compressed by a mass springing from the odontoid process. This was composed of dense fibrous tissue in which was imbedded a bony nodule (osteo-fibroma).

The second patient was a fifty-five year old watchman who was admitted to Bellevue Hospital in July, 1924. For seven months prior to his admission, he complained of sharp pains in both shoulders radiating down the left arm and even into the left lower extremity. Four months later, he noted a similar pain in the right arm. He soon found that he was unable to execute finer movements with either hand. Walking became increasingly difficult and there was some hesitancy in voiding urine. He also noticed a sharp pain in the left side of the neck radiating upward.

Physical examination revealed moderate emphysema and mild athero-sclerosis. The neurological examination showed weakness of the upper extremities, more pronounced in the left, and paresis of both lower limbs. There seemed to be no disturbances in superficial sensation, but joint mobility and vibratory sense were impaired from the shoulders down. There was astereognosis in both hands with tabetic athetosis and ataxia. Gait was spastic-ataxic. There was a positive Romberg sign. Abdominals were diminished. Deep reflexes were exaggerated. A right Hoffman and bilateral Babinski sign were present.

The chief symptoms were those referable to the posterior and lateral columns.

Spinal fluid showed no abnormalities except for a tendency to a paretic gold curve. Gastric analysis revealed hypochlorhydria. There were no evidences of pernicious anemia.

It was thought that we might be dealing with a capsulo-thalamic lesion on a degenerative basis. It was difficult, however, to

reconcile the diagnosis of a cerebral lesion with the absence of any changes referable to the cranial nerves. He was discharged for further observation.

Patient was readmitted in January, 1925, with the same complaints but increasing weakness. Definite atrophy and fibrillary twitching were now present in the muscles of the left shoulder girdle. The sensory disturbances were the same as those previously noted, but there was now demonstrated an area over the left shoulder, in the form of an epaulette, in which pain, tactile and temperature sense were impaired. Patient held his head rather stiffly.

Lumbar puncture now revealed manometric block and mild xanthochromia.

The sensory changes soon extended upward to C2. Faradic responses, in the left deltoid and biceps muscles were diminished. Fibrillation was observed in both trapezius and sterno mastoid muscles, but more especially on the left.

Fluroscopic examination of the diaphragm showed limited excursions on the left side. No Bence-Jones bodies were found in the urine.

It was now felt that we were dealing with a lesion near the foramen magnum with antero-posterior compression of the cord at C2. It was advised that upper cervical laminectomy with partial removal of the foramen magnum be performed. This was done on May 1, 1925.

There was no evidence of bony disease. The dura appeared whitish and dense. The arachnoid seemed thicker than normal and was definitely adherent to the cord and to the dura. Overlying the first and second cervical segments, there was a dense whitish mass that seemed to mushroom out of the cord. It was quite thick and its caudal extremity spread out finger-like over the cord. Attempts to find a line of demarcation between this mass and the cord were unsuccessful. The cord was adherent to the dura on either side for a distance of two or three segments. The upper border of this mass presented a very sharp line of demarcation. This adhesive process seemed to obstruct completely the circulation of the cerebro-spinal fluid. Except for the adhesions and the mass mentioned, the cord appeared normal. The pathological condition found explained the spinal block and

the scar tissue probably accounted for the pain in this area. It was considered that the process was inflammatory rather than neoplastic (possibly luetic in origin).

Microscopic study was not made.

The patient survived the operation only 24 hours. No autopsy was performed.

HEMILAMINECTOMY

ALFRED S. TAYLOR

In the December meeting of 1909 the original paper of "Unilateral Laminectomy" was presented. It is now called "Hemilaminectomy" because of the custom among most writers.

Most neurological surgeons think the method has no advantages. The usual operation, "bilateral laminectomy," has been perfected and made easy, but there are conditions in which hemilaminectomy has decided advantages.

Before discussing them it should be stated that special instruments, designed for the purpose, are essential to the satisfactory performance of this operation. With the use of these instruments it is possible to remove the laminae of one side so as to give an exposure fully as wide and usable as that obtained in the usual bilateral laminectomy.

It will be noticed that the exposure indicated in the pictures is at an angle very favorable for the exploration of the cord with very little manipulation necessary. The following things have been repeatedly done without damage to the cord:

Exploration of the spine at all levels.
(With lumbar lordosis and thick muscles the procedure is difficult and unsatisfactory.)
Dorsal ramisection on one or both sides.
Unilateral chordotomy can be accomplished with perfect ease, but bilateral chordotomy cannot be done.
Exposure of spinal cord tumors with their removal.

These have frequently been done; tumors have varied from 3 to 5 cm. in length and 1 to 2 cm. in diameter.

They have been ventral; they have been lateral; they have been dorso-lateral. They have been removed so that there has been no evidence of damage to the cord from necessary manipulation.

Intramedullary tumors have been explored, decompressed by splitting the cord and leaving the dura unsutured.

One chondroma on the ventral aspect in the cervical region was removed with rapid improvement on the part of the patient.

Exposure of adhesive arachnoiditis simulating tumors.

Exposure of "meningo-myelitis" simulating tumors.

Therefore, hemilaminectomy can be used with safety to the patient and most of the things usually done through bilateral laminectomy can be accomplished through a hemilaminectomy.

The question is, whether under certain circumstances hemilaminectomy possesses such decided advantages over the usual procedure that it ought to be the method of choice.

Remember that in hemilaminectomy the laminae of one side and the spinous processes are left intact together with their muscular and ligamentous attachments, a great stabilizing item. This is particularly true in the cervical spine. When complete laminectomy is done the ligamentum nuchae is more or less destroyed and the only supports left to the neck are the intervertebral disc and the ligaments between the bodies of the vertebrae and articular processes.

Three cases are cited in which bilateral laminectomy in the cervical region was followed by dislocation of greater or less degree; in one case leading ultimately to death; in the third case probably causing death, and in the second case causing no trouble.

In the lumbar and sacral regions if bilateral laminectomy is done, if there is a tendency to spondylo-listhesis, then the patient has very little support against a recurrence of this disability and there is no bone so situated as to permit fusion of the spine or bone implant which would give sufficient rigidity to prevent this accident. Illustrations are given of these conditions.

Ventral and ventro-lateral tumors can be approached and disposed of through the lateral exposure natural to hemilaminectomy with far less manipulation of the cord than is feasible in the usual laminectomy.

Finally, it should be stressed that if hemilaminectomy is used for exploration and a condition is found which cannot be properly handled, it is the simplest thing in the world to convert the exposure into a bilateral laminectomy, involving as much of the field as is necessary.

Various cases were cited to illustrate and prove the assertions made in the body of the paper.

Section of Pediatrics, December 9, 1926

THE SIGNIFICANCE OF THE CHANGES IN THE CHEMISTRY OF THE BLOOD IN PERTUSSIS

JOSEPH C. REGAN

ALEXANDER TOLSTOOUHOV

This subject first began to interest the authors because of the unusual effect observed in a case of severe pertussis and gastric ulcer following the administration of alkalies. After further corroborative evidence of the curative value of the remedy, it was decided to look into the chemistry of the blood in this infection.

No information was available in the literature, the examinations of the blood heretofore published being concerned with the total and differential blood-cell counts. Therefore an investigation of this neglected field of blood chemistry was undertaken.

A total of 682 determinations were carried out, including hydrogen ion, inorganic phosphorus, calcium, carbon dioxide, urea, uric acid, creatinine, and sugar.

Two very significant alterations were found:—(1) A diminution of the total inorganic phosphorus and (2) a change in the hydrogen-ion concentration. These changes were found so frequent in the acute stage that they might almost be called characteristic.

These changes occur early in the disease, appearing even in the catarrhal stage and they are well developed, especially the alteration in phosphorus, during the first few weeks of the paroxysms. There appears to exist a certain parallelism in the changes in P H and phosphorus which signifies a close interrelation.

It does not seem plausible to assume a rachitic origin for the changes in the phosphorus, because of the age grouping of the patients, the absence of typical rickets, except in a minor number, the associated P H alterations in the blood, as well as the effect of alkaline treatment in causing a rapid rise of the inorganic phosphorus.

The calcium content while exhibiting slight mobility showed no changes of a consistent and definite type.

These changes indicate an acidosis of an uncompensated type (type 6 Van Slyke) which has as a cause the accumulation or increased concentration of free carbon dioxide in the blood. This laboratory observation is easily correlated with several of the symptoms so prominent in pertussis—the paroxysms, the vomiting, parenchymatous emphysema and convulsions.

The vomiting of the disease may be a compensatory mechanism adopted by the body to eliminate acid in an attempt to maintain a normal acid base balance.

This contention of an uncompensated acidosis is further substantiated by the effects on the disease of alkali therapy.

Alkalis administered early appear usually to abort the disease and associated with the cure is a rapid rise of inorganic phosphorus and a change in P H of the blood, while, if given late, cure supervenes in a relatively short period.

THE TREATMENT OF BEHAVIOR PROBLEMS IN CHILDHOOD

DUDLEY D. SHOENFELD
WILLIAM V. SILVERBERG

The paper describes a method whereby the behavior reactions of problem children are considered as located on a scale of behavior patterns, in which infantile responses on the one hand and mature responses on the other constitute the polarities. The child's reaction to desire and attainment is used as a practical criterion in terms of which the level of the child's behavior along the scale of behavior patterns can be roughly determined. The aim of the therapy is to adjust the child to behavior consistent

with his age by indicating to him the significance of his responses in terms of the above-mentioned polarities.

The paper also stresses the need for such a direct method of approach, in which psychoanalysis *lege artis* has up to now failed as regards the majority of behavior problems in children. It stresses also the value to social workers, teachers and parents, as well as to physicians, of making use of the concepts upon which the method is based, although the authors feel that the extended and detailed practice of the method would remain in the hands of the physician.

Section of Historical and Cultural Medicine, December 9, 1926

EDITIONS OF THE REGIMEN SANITATIS SALERNITARUM

CHARLES L. DANA

The Regimen Sanitatis Salernitarum, or Flor Medicinae, consists of a poem of about 362 verses, in hexameters. It appeared about 1260.

A little later Arnaldus of Villa Neuva (1235–1312), a doctor, preacher, chemist and writer of a text-book on Medicine, published the Regimen with many comments. Nearly all the printed editions of the Regimen contain the Arnaldus comments, so that many have thought he was the author.

The Regimen of the School of Salernum was the layman's medical Bible for three centuries and it is still a treatise that announces correctly the fundamentals of a sound hygiene. It was one of the earliest of printed books and went through a great number of editions, in many languages, the editions coming down to the 19th century.

I have 17 editions of the School of Salernum. They were published in the following years. These different editions at different periods going over 4 centuries furnish interesting examples of printing and book-making.

1480 Venice
1480 Venice

1490 Argen (Strasburg)
1552 Leipsic
1557 Frankfort
1559 Frankfort
1609 London
1620 London—New York, 1920, Hoeber
1634 London
1649 Paris
1650 Paris
1657 Rotterdam
1657 Paris
1722 Ratispon
1871 Philadelphia
1880 Paris
1888 Paris

The best and most correct English poetic translation is that by Dr. John Ordronaux (1871).

The most interesting edition from the point of view of printing and age is the small quarto (Strasburg) edition of 1490. This I prize most, personally. The two other incunabula (both 1480) are very much alike and probably came from the same press in Venice, viz., that of Bernardus Venitii de Vitalitres. The dates given in the book are 1480.

One of the editions (that of Frankfort, 1557) is freely illustrated with wood-cuts of herbs, roots, etc., and social groups illustrating the life of the day.

The date of the binding of my Salernum books is not always known. Some are contemporaneous, but no edition has a binding of very marked value except that of 1490 (which is all vellum). The English edition of 1634 is well-bound in contemporaneous sheep, and is printed in both Roman and black letter.

My editions are in Latin, English, German and French.

The rarest and most valuable edition commercially is the English translation made by John Harrington in 1608 and 1609, and known as "The Englishman's Doctor." It is an interesting example of Elizabethan literature and book-making.

The most complete and informing editions are those of Ordonaux and the two volume edition printed in Paris (1880) and

edited by Ch. Meaur Saint-Marc. It has six quaint illustrations taken from earlier works.

My last edition by Dr. Becavin [Paris, 1888] is a Student's Thesis; it is very well done and is inexpensive.

The printing of these Regimen books illustrates the progress and at times the decline of the art. The three incunabula are beautifully printed; the pages look heavy and dark and the lines are long, but every word is easily legible. The 16th century editions are also well printed; italics are now much used, and they have smaller paging. The wood-cuts are well done. The 17th century books are not interesting from a printer's point of view except that they show how badly printing could be done and was done in England in that period.

I have no *Edition de luxe* of any period.

Section of Otology, December 10, 1926

TRAUMATIC MASTOIDITIS WITH POST-OPERATIVE SIGNS SUGGESTIVE OF AN INTRACRANIAL COMPLICATION

WALTER L. HORN

H. S., a six-year-old boy, was struck by an automobile and was admitted eight hours later to the Surgical Service of the Mount Sinai Hospital. There it was noted that the right ear was bleeding profusely and that there was no apparent escape of cerebrospinal fluid and no bleeding from the nose or mouth. At no time did the child lose consciousness, but was somewhat drowsy for about two hours directly after the accident. He vomited seven or eight times and complained of headache and pain in the right ear.

On admission the child was found to be wide awake but restless. He showed no evidence of external violence, no swellings, no bruises. The pupils were equal, reacted well to light and aside from a converging strabismus, which was congenital in character, there were no objective neurological findings. The temperature, pulse and respiration were normal.

An examination of the right ear revealed a linear tear in the membrana-tympani in its upper and posterior quadrant through which bloody fluid was oozing. Hearing, however, in that ear was normal.

An X-Ray examination of the skull was not entirely satisfactory due to restlessness of the patient, but still the report read: "No visible fracture noted."

The first eight days of the patient's stay in the hospital were uneventful; the temperature, pulse and respiration remained normal. He was comfortable, did not complain of anything and was only occasionally drowsy. But on the eighth day there occurred an abrupt change; the temperature suddenly rose to 102° and continued to rise to 103°. He began to complain of severe pain in the right ear and a foul smelling purulent discharge from the right ear was noted, and there appeared a definite sagging of the posterior canal wall with edema and tenderness over the right mastoid. Hearing became somewhat impaired. The diagnosis of acute mastoiditis was made.

A simple mastoid operation was performed. At the operation a linear fracture was found. Its upper limits could not be ascertained, but beginning about 1 cm. above the floor of the middle fossa in the squamous portion of the temporal bone the fracture extended downward vertically through the floor of the middle fossa across the mastoid bone and through the posterior canal wall just above the semi-circular canals. There was some free pus and a breaking down of the mastoid cells. A free fragment of bone, apparently a portion of the floor of the middle fossa, was disclosed and removed. The overlying dura appeared normal. A subsequent bacteriological examination of pus from the mastoid showed streptococcus hemolyticus.

The post operative course was uneventful for a period of twelve days. On the twelfth day a sudden change took place; the boy complained of headache, became irritable and vomited on two occasions. The temperature rose to 100, the pulse to 100 and there developed mild meningeal signs, such as slight rigidity of the neck and bilateral Kernig. In addition there were found a definite left Babinski, hyperactive knee jerks and markedly diminished abdominal reflexes on the right side. Within a few hours there was elicited bilateral ankle clonus which was more

marked on the left side. These signs indicated a right focal lesion and in view of previously established suppurative focus in the right ear the possibility of cerebral abscess in the temporal lobe was considered.

A lumbar puncture yielded clear cerebro-spinal fluid under markedly increased pressure. There were eighty-eight cells, all lymphocytes, but no organisms on smear or culture. The neurologists favored the diagnosis of a circumscribed form of meningitis and considered surgical interference inadvisable, but the progressive advance in the condition of the patient continued, the ankle clonus became inexhaustable on the left side and the optic discs showed definite swelling. The question of a temporo-sphenoidal abscess was raised again, but the neurologists did not change their opinion and advised against operation.

The child was not operated upon. The conservative steps in the treatment were fully justified by the subsequent course of events. Five days after the onset of the acute meningeal symptoms there occurred a turn for the better. The patient showed gradual but constant improvement, the meningeal signs subsided, the organic neurological signs disappeared, so that seven weeks after the injury the child was discharged from the hospital as very much improved. Recently he was reexamined and found free of cerebral signs and symptoms and is regarded as having made a full recovery. It is rather unlikely that there should be a latent brain abscess without a single sign or symptom.

Should I be permitted to speculate somewhat on the character of the lesion which precipitated the meningeal and focus cerebral signs, I would have suggested the following possibility. You will recall that at the operation a defect was found in the floor of the middle fossa. A piece of bone was removed at this point. Is it not possible that the traumatized dura with its overlying soft meninges became involved in a circumscribed aseptic meningeal process, which gave rise to the transient neurological signs and symptoms as noted in this case?

Section of Genito-Urinary Surgery, December 15, 1926

SURGICAL ASPECTS OF POLYCYSTIC KIDNEY DISEASE

R. E. Cumming

Surgical dealings, with vital organs already handicapped by developmental defects, at once arm the clinician with a wariness akin to the handling of poison and intrigue him with possibilities for the benefit of a certainly hopeless infirmity.

One speaks of polycystic kidneys as growing "ripe," referring to the stage at which often the disease is first recognized, the beginning of a fatal decline manifested by symptoms comparable to nephritic downward progress, renal dysfunction, uremia, anuria, death.

As can be readily presupposed, the margin of safety with polycystic kidney disease is narrow to a degree parallel with the advancement of degeneration, and always narrower than in kidney pathology engrafted upon congenitally healthy organs.

Certain diagnostic and investigative procedures familiar to the urologist serve not only to prove the presence of the disease we are discussing, but as means of improving the function of the failing kidneys, thereby possibly delaying the consummation of the disease and ultimate death. We refer particularly to cystoscopy and kidney pelvis drainage, pyelography for diagnosis, and in rare instances nephrotomy for drainage of grossly infected cyst areas. All of these manoeuvers require the utmost care and good judgment; simultaneous catheterization of both ureters being dangerous and bilateral pyelography prohibitive. Such radical steps as nephrectomy, removal of the more advanced and (presumably) the pyonephrotic kidney, are likely never of value.

Unless one is thoroughly familiar with the gross appearance of polycystic kidneys, he will occasionally be perplexed, meeting at the operating table that large cystic hydronephrotic organ which in the gross has the size and outline of true cystic disease, and is in a sense a polycystic kidney, although the simple result of obstruction and infection which have advanced to complete destruction of the organ, leaving no functioning renal tissue and filled with stale urine.

It is conceded that, of all renal anomalies, the polycystic kidney is the most important. The fact as already intimated, that one organ may show no gross evidence of the disease, does not disprove the theory that the condition is always bilateral. In many instances Davis has found in cases presenting on the one side advanced cystic degeneration and on the other a grossly normal kidney (as to cyst formation), that this other organ presented under the microscope unmistakable evidence of early cysts.

Davis' conclusions would tend to the assumption that human polycystic kidneys result from a partial cessation of development at the mesonephric stage, degenerative changes coming later to complete the picture of interference with the normal kidney function. He compares the human polycystic kidney to the normal kidney of the codfish (and other lower forms) and finds distinct similarities which are most significant, since in these lower animals the full-grown kidney is of the mesonephric type.

In Davis' series of fourteen completely studied cases, he found universal evidence of progressive characteristics and, of more importance to the clinical worker, a "marked tendency to hemorrhage and infection." This was especially noticed in the adult specimens. The gross material showed the predominating position of the majority of the well-formed cysts to be in the cortical and subcortical zones, and the oldest and largest formations near the fusion line of the lobules.

It is perhaps due to the rather uniform gross and microscopic picture, overshadowed with secondary changes (hemorrhage and infection), which the adult kidney presents, that an earlier accurate estimate of etiological possibilities has not been satisfactorily made. Davis hit upon the plan of studying young specimens, especially in early stages (in a fetus) in order to escape the changes mentioned. It is particularly from his study of a serially-sectioned polycystic kidney of a full-term fetus that he has made his admirable and probably correct analogy between polycystic types and the embryological mesonephros.

The several clinical types usually described are but transitions of one another; the slowly advancing case parallels chronic interstitial nephritis and may continue for years, while at any period it may, on the other hand, merge into the uremic type, with fatal

outcome in a few days, or, as is particularly noted by us, any given case may become surgical with pain, hematuria and pyuria. With these latter symptoms, according to the treatment and results, a given case returns to the chronic form or gradually presents grave uremia, frequently having several periods of infection.

While theoretically evacuation of as many cysts as can be reached by surgical exposure of one, or both kidneys, seems of advantage, a study of many gross specimens shows how futile such operative efforts would prove, since the cysts occupy the entire bulk of the kidney. As late writers advise the so-called Rovsing operation, we would plead a more accurate record of results obtained.

Discussion of nephrectomy is scarcely necessary; our case reports are typical of this phase of the subject; when one kidney is removed an extra load on the opposite organ apparently causes what we may term a physiological crisis, forcing any differentiation from normal to be more evident, with resulting diminution of function. Other involved organs, such as liver, are simultaneously weakened, tending to dysfunction.

Repeated pelvic drainage and lavage have often been of value, and in our hands have relieved acute symptoms repeatedly. Catheter drainage and the cautious use of weak solutions of silver nitrate have invariably checked a stubborn hematuria, and this drug may be of additional value since in all cases there has been coincident infection.

Our clinical observations are based upon a total of twenty-six cases; of these I have studied the surgical or autopsy material in twenty-two cases. For the data upon the remaining four cases I am indebted to Dr. O. S. Lowsley. It is my purpose here to give in briefest outline a clinical record of selected cases, with a summary relative to age incidence, multiple physical defects and possible surgical results.

General conclusions:

1. It is logical to assume that "congenital polycystic kidneys are caused by defective protoplasm, which may be inherited or congenital in obedience with the same biologic laws governing the recessive characteristics illustrated in phylogenetic changes and in other congenital deformities" (Davis).

2. Davis compares the human polycystic kidney to the normal kidney of the codfish and finds distinct similarities; we can therefore assume that the generally accepted theory of cyst-formation as due to developmental defects is amplified, since there is halting at the mesonephric stage.

3. While theoretically evacuation of cysts to lessen intrarenal pressure, and nephrotomy for drainage of associated pyronephrosis, seem of value, their practical application is not satisfactory. Simpler measures, namely pelvic lavage and catheter drainage, are of decided value especially adapted to control hemorrhage and infection.

4. Nephrectomy for polycystic disease is rarely of value and usually fatal; it is often performed in ignorance of the actual pathology. Careful urological study is indicated in all cases presenting more than a simple nephritic syndrome, and caution is necessary to prevent an increased renal loss of function. Simultaneous ureteral catheterization is dangerous and bilateral pyelography impossible.

Section of Medicine, December 21, 1926

RENAL AND CARDIOVASCULAR DISEASE IN PREGNANCY: THEIR RELATION TO CERTAIN GENERAL MEDICAL PROBLEMS

JEAN CORWIN
W. W. HERRICK

The late toxemias of pregnancy represent failure of a defective maternal cardiovascular-renal system to adapt itself to the strain of childbearing. They interest the medical practitioner as early examples of disorder in this system and also as indicators of latent weakness which will reappear in later life.

Two hundred and ninety-one cases were studied at the Sloane Hospital for Women. They are classified as (1) acute convulsive toxemias, (2) nephritic toxemias, marked by long-continued albuminuria or relative nitrogen retention, and (3) hypertensive toxemias, a group of cases characterized by hypertension without

marked albuminuria and set apart because of its resemblance to "essential hypertension."

The cases were studied with special reference to the cardiovascular-renal status in the ante-partum clinic and wards and later in a follow-up clinic over periods varying from six weeks to six years post-partum. The tabulated observations show that cardiac hypertrophy, thickening of the brachial and radial arteries and certain eye-ground changes were present in a large proportion of these cases during the toxemia (this suggests that some disorder antedated pregnancy) and also during the follow-up period. Hypertension persisting for months or years was found in one-third of the cases of eclampsia, one-half of the cases of nephritic toxemia and two-fifths of the cases of hypertensive toxemia. One-half of the nephritic group showed marked albuminuria in the follow-up period.

Fetal mortality in the eclamptic group was 55 per cent., in the nephritic group 47 per cent. and in the hypertensive group 15 per cent.

Both the fetal mortality and the later incidence of signs of persistent disease were greater in those cases showing the higher blood pressure readings during pregnancy.

These types of toxemia are, therefore, not mere complications of pregnancy. It is probable that pregnancy reveals rather than causes the disease. The behavior of a woman's cardiovascular-renal system in pregnancy gives to the physician a valuable hint as to what may be expected of it under subsequent stresses and strains.

Search for a single toxin as the cause of these toxemias may continue to be fruitless. Much may be learned, however, by a broad study of the woman who makes this abnormal response to pregnancy.

Section of Laryngology and Rhinology, December 22, 1926

INJECTION OF IODIZED OIL INTO THE SPHENOIDAL SINUSES

A. LOBELL

Various opaque substances have been tried in the past for the purpose of sinuography, but it never achieved any popularity as a diagnostic method until iodized oil came into existence.

Iodized oil is a very suitable substance for the mucosa. It is antiseptic and soothing. It is highly radi-opaque. The writer, at the advice of Dr. Law, the Roentgenologist, has diluted lipiodol with equal parts of peanut oil and found it equally efficacious.

Accuracy of technique and caution are highly essential in the injection of the sphenoidal sinus because it is so intimately connected with many vital intracranial structures.

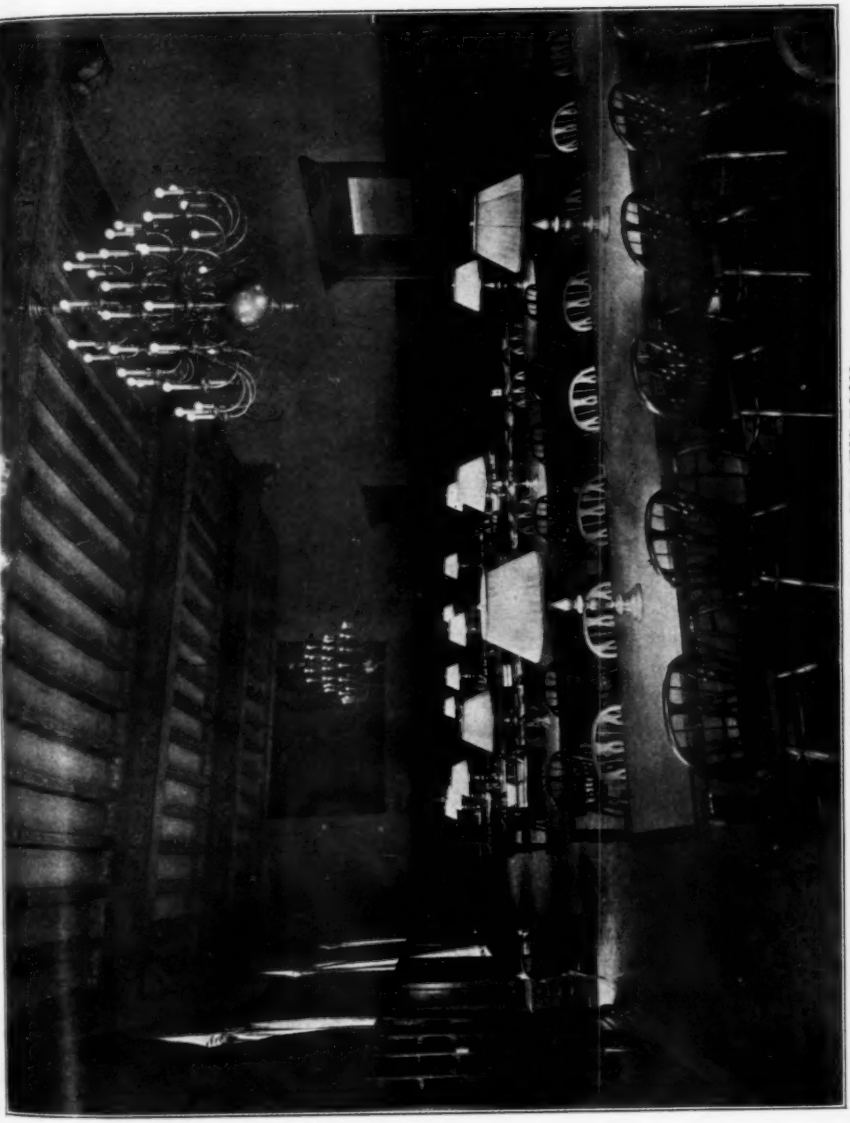
The writer has injected a number of sphenoidal sinuses by the method which he had already described in the Laryngoscope, April, 1926, without any complications. (The X-Ray plates will be shown by lantern slides and the instrument will also be demonstrated.)

Sinuography is of distinct value in the study of the morphological variations of the sinuses. The clinician, the surgeon, the teacher and the student will all find it of great utility.

From the standpoint of diagnosis it is necessary to remember that sinuography cannot replace the radiographic method. It can only serve as an auxiliary agent to the older method in obscure conditions and to elucidate certain points. It is not infallible by any means.

The injection of the sinuses for therapeutic purposes is still in the experimental and empiric stage. It deserves a fair trial.

Sinuography offers an opportunity for greater co-operation between the sinuologist and the Roentgenologist than heretofore because both participate in the production of the sinuogram for the specific purpose intended.



WOERISHOFFER HALL.—READING ROOM

PROCEEDINGS OF ACADEMY MEETINGS

January

Annual Meeting

Thursday evening, January 6, at 8:30 o'clock

ORDER

I. Executive session.
Reading of the minutes.
Nominations for four members of Committee on Admission.
Address of retiring president, Samuel A. Brown.
Address of incoming president, Samuel W. Lambert.
Reports of Treasurer, Council, Trustees, Committees and Sections.

II. Address:
Some clinical problems in the application of the Wassermann reaction, John H. Stokes, Philadelphia (by invitation).

Stated Meeting

Thursday evening, January 20, at 8:30 o'clock

ORDER

I. Executive session.

II. Papers of the evening: A Symposium on Backache.
a. From the standpoint of the orthopedist, Nathaniel Allison, Boston (by invitation).
b. From the standpoint of the urologist, J. Bentley Squier.
c. From the standpoint of the gynecologist, George Gray Ward.
d. From the standpoint of the neurologist, Foster Kennedy.

Section Meetings

Section of Dermatology and Syphilis

Tuesday evening, January 4, at 8 o'clock

ORDER

I. Presentation of patients.
a. From the Bellevue Hospital, service of Mihran B. Parounagian.

b. From the Fordham Hospital, service of Benjamin Ochs.
c. From the Bronx Hospital, service of Adolph Rostenberg.
d. Miscellaneous cases.

II. Discussion.

III. Executive session.

Section of Surgery

Friday evening, January 7, at 8:30 o'clock

ORDER

I. Reading of the minutes.

II. Presentation of cases.
a. Fecal fistula; an aid to closure, David H. Orgel.
b. Abscess of the liver, operation, recovery, Joseph E. J. King.
c. 1. Echinococcus cyst of the liver, operation—cure.
2. Benign stricture of the esophagus.
3. Occlusion of the common bile duct from pressure of
4. Carcinoma of the sigmoid in a young adult, Henry W. Cave.
d. 1. Extensive burn with tetanus.
2. Burns by electricity—2 cases, John J. Moorhead.
e. Fracture of the transverse processes of the lumbar vertebrae—3 cases, Robert H. Kennedy.

III. Papers of the evening.
a. Metabolism in burns, John J. Moorhead, John A. Kilian, Ph.D. (by invitation).
b. Fracture of the transverse processes of the lumbar vertebrae, Robert H. Kennedy.

Section of Neurology and Psychiatry

Tuesday evening, January 11, at 8:30 o'clock

ORDER

I. Reading of the minutes.

II. Presentation of cases.
A case of extensive cerebral thrombosis (lantern slides), Irving J. Sands.

Discussion by Leon H. Cornwall.

III. Papers of the evening.

a. The feeling of inferiority and its compensations, Alfred Adler, Docent of the Pedagogical Institute of Vienna (by invitation).

General discussion.

b. Sensory distribution of the facial nerve, Simon L. Ruskin (by invitation).

Discussion by Frederick Tilney, J. Ramsay Hunt.

Section of Pediatrics

Thursday evening, January 13, at 8:30 o'clock

ORDER

I. Reading of the minutes.

II. Papers of the evening.

a. Epidemic meningitis in the first three months of life, Josephine B. Neal, Henry Wirt Jackson (by invitation).

Discussion by Stafford McLean, Joseph B. Regan (by invitation).

b. Encephalitis, associated with measles, Josephine B. Neal, Emanuel Applebaum (by invitation).

Discussion by Orman C. Perkins (by invitation), John D. Lyttle.

c. A study of tuberculin-positive children in foster homes, Arthur F. Anderson (by invitation).

Discussion by Charles Hendee Smith, Oscar M. Schloss.

III. General discussion.

Section of Otology

Friday evening, January 14, at 8:30 o'clock

ORDER

I. Reading of the minutes.

II. Papers of the evening.

a. The philosophy of the older tests of hearing, Robert Sonneschein, Chicago (by invitation).

b. The newer tests of hearing, with demonstration of methods, Edmund P. Fowler (by invitation).

Lantern slides.

III. Discussion by John Rae, Harvey Fletcher, Ph.D., Director, Bell Telephone Research Laboratory (by invitation), John Guttman.

Section of Ophthalmology

Monday evening, January 17, at 8:30 o'clock

ORDER

I. Reading of the minutes.

II. Clinical cases.

a. Sympathetic ophthalmia in a boy eleven years of age with excellent result in sympathizing eye and some vision in exciting eye, Charles Gluck (by invitation).

b. Case of intra-ocular sarcoma in a child. Old staphylomatous eye, microscopic and macroscopic specimen, W. B. Weidler.

III. Papers of the evening.

a. Palpitory exploration of the eye ball and the orbital contents, a matter for the diagnosis of obscure conditions heretofore little recognized, Mark J. Schoenberg.

b. Three cases of progressive amaurosis of retro-bulbar origin. Recovery of vision with foreign protein treatment, Julius Wolff.

Discussion by Joseph H. Globus.

Section of Medicine

Tuesday evening, January 18, at 8:30 o'clock

ORDER

I. Papers of the evening.

a. Phosphaturia, George Baehr.

b. Report on fifty cases of Graves' disease observed for six years, Leo Kessel, Harold T. Hyman.

c. Guacher's splenomegaly with bone involvement and hemo-pericardium, Bernard S. Oppenheimer, Nathan Rosenthal (by invitation).

Discussion.

Section of Genito-Urinary Surgery

Wednesday evening, January 19, at 8:30 o'clock

ORDER

I. Reading of the minutes.
II. Presentation of new apparatus and instruments.
   a. A new tube for suprapubic suction drainage of the urinary bladder. Illustrated by lantern slide demonstration, Frank W. Harrah (by invitation).
   b. A new fulgurating cystoscope.
   c. An instrument for applying heat to the prostate under vision, Oswald S. Lowsley.
III. Presentation of specimen.
   An unusually large ureteral stone. Illustrated by lantern slide, I. C. Reshower (by invitation).
IV. Paper of the evening.
   Urinary calculi. Special reference to end results, E. O. Smith, Cincinnati (by invitation).
V. General discussion.
VI. Executive session.

Section of Orthopedic Surgery

Friday evening, January 21, at 8:30 o'clock

ORDER

I. Reading of the minutes.
II. Presentation of cases.
   a. Traumatic osteoporosis of carpal scaphoid, 2 cases. Lantern slides, Joseph Buchman (by invitation).
   b. Axillary contracture following burn, treated with pinch grafts, Paul C. Colonna.
   c. Solitary vertebral cyst, operation, Irving Balensweig (by invitation).
   d. Pressure paralysis anterior crural nerve following Bassini operation, Royal Lee (by invitation).
   e. Exploratory operations in chronic arthritis of the knee joint, 5 cases. Lantern slides, Arthur Krida.

f. Retroperitoneal abscess simulating hip disease. Operation and recovery, Armitage Whitman.

g. Traumatic dislocation of the sacro-iliac joint, Samuel Kleinberg.

h. (a) Case of spondylisthesis. Operation.
(b) Case of pathological dislocation of hip. Operation, Charlton Wallace.

i. New operation for recurring dislocation of the shoulder, 1 case, Percy W. Roberts.

III. Paper of the evening.
The etiology of cavus and a new operation for its correction. Lantern slides, J. Torrance Rugh, Philadelphia (by invitation).

SECTION OF OBSTETRICS AND GYNECOLOGY

Tuesday evening, January 25, at 8:30 o'clock

ORDER

I. Reading of the minutes.

II. Case report.
Persistent menstruation during successive pregnancies, D. Deutschman (by invitation).

III. Papers of the evening.

a. A combined cystocele and retroversion pessary, Herman Strongin (by invitation).
Discussion by Asa B. Davis, C. F. Jellinghaus, Kyle B. Steele (by invitation).

b. The disadvantages of a long period in bed post-partum, H. J. Epstein (by invitation), A. J. Fleischer (by invitation).
Discussion by George L. Brodhead, Max Rosenthal.

c. Tracheloplasty versus tracheloplastering, M. O. Magid.
Discussion by Frederick C. Holden, A. J. Rongy.

SECTION OF HISTORICAL AND CULTURAL MEDICINE

Thursday evening, January 27, at 8:30 o'clock

ORDER

I. Papers of the evening.

a. The development of military medicine. Lantern illustrations, Lieut. Col. J. W. Grissinger, U. S. Army Medical Corps (by invitation).

Discussion opened by Lieut. Col. M. A. Reasoner, U. S. Army Medical Corps (by invitation).

b. Hermann Biggs and the fight for bacteriology in New York in the nineties, Prof. C. E.-A. Winslow, Yale University (by invitation).

Discussion opened by Haven Emerson, D. B. Armstrong, W. H. Park.

RECENT ACCESSIONS TO THE LIBRARY

Baylis, H. A. & Daubney, R. A synopsis of the families and genera of nematoda.
Lond. Brit. mus., 1926, 277 p.

Bethea, O. W. Practical materia medica. 4. ed.
Phila. Davis, 1926, 498 p.

Blum, S. Practical dietetics. 2. ed.
Phila. F. A. Davis, 1926, 362 p.

Bossi, L. M. Manual de obstetricia. 2. ed.
Barcelona. Gaili, 1925, 510 p.

Colombino, C. L'esplorazione delle vie urinarie nelle pratica ostetrico-ginecologica.
Milano. Cogliati, 1926, 226 p.

Cunningham, W. H. Character, conduct and study.
N. Y. & London. G. P. Putnam's Sons, 1926, 118 p.

DeLint, J. G. Atlas of the history of medicine. I. Anatomy.
Lond. Lewis, 1926, 96 p.

Domarus, V. von. Grundriss der inneren Medizin. 2. Aufl.
Berlin. Springer, 1926, 650 p.

Ellis, H. Study of British genius.
Boston & N. Y. Houghton Mifflin co., 1926, 396 p.

Entwicklungsstadien der Tuberkulose . . . Hrsg. von C. Harms.
Leip. Kabitzsch, 1926, 182 p.

Foerster, E. Die Insulinbehandlung der Zuckerkrankheit.
München. Bergmann, 1925, 47 p.

Franck, R. Modern Therapie.
Leipzig. F. C. Vogel, 1926, 580 p.

Gardiner, H. Physiology and anatomy.
Lond. Pitman, 1926, 414 p.

Gellhorn, E. Neuere Ergebnisse der Physiologie.
Leip. Vogel, 1926, 446 p.

Goodman, H. Care of the skin in health.
N. Y. Med. lay pr, 1926, 99 p.

Goodman, H. The basis of light in therapy.
N. Y. Med. lay pr, 1926, 163 p.

Gould's medical dictionary. Ed. by R. J. E. Scott.
Phila. Blakiston, 1926, 1,398 p.

Healy, W. & Bronner, A. F. Delinquents and criminals.
N. Y. Macmillan, 1926, 317 p.

Hedges, E. S. & Myers, J. E. The problem of physico-chemical periodicity.
N. Y. Longmans, 1926, 95 p.

Henkels, P. Lehrbuch der veterinärmedizinischen Röntgenkunde.
Berlin. Parey, 1926, 266 p.

Henneberg, W. Handbuch der Gärungsbakteriologie. v. 1.
Berlin. Springer, 1926, 650 p.

Hill, T. C. A manual of proctology. 2. ed.
Phila. Lea, 1926, 294 p.

Hollender, A. R. & Cottle, M. H. Physical therapy.
N. Y. Macmillan, 1926, 307 p.

Hurry, J. B. Imhotep . . . the Egyptian god of medicine.
London. Oxford pr, 1926, 118 p.

Jamison, A. B. The making of a super-race.
N. Y. Author, 1926, 226 p.

Jordan, A. C. Chronic intestinal stasis. 2. ed.
Lond. Oxford pr, 1926, 230 p.

Jores, L. Anatomische Grundlagen wichtiger Krankheiten. 2. Aufl.
Berlin. Springer, 1926, 525 p.

Kahn, M. & Goodridge, F. G. Sulphur metabolism.
Phila. Lea, 1926, 831 p.

Karsner, H. T. Human pathology.
Phila. Lippincott, 1926, 980 p.

Keegan, L. M. Food values.
N. Y. Macmillan, 1926, 106 p.

Kirchberg, F. Handbuch der Massage und Heilgymnastik.
Leip. Thiems, 1926, 2 vols.

Kneise, O. Handatlas der Cystoskopie.
Leipzig. Thieme, 1926, 119 p.

Kretschmer, E. Medizinische Psychologie. 3. Aufl.
Leip. Thieme, 1926, 273 p.

Lake, R. Contributions to the art & science of otology.
Lond. Macmillan co., 1926, 255 p.

Langstein, L. Dystrophien und Durchfallskrankheiten im Säuglingsalter.
Leip. Thieme, 1926, 207 p.

Lévy-Bruhl, L. How natives think.
N. Y. Knopf, 1926, 392 p.

Lorand, A. Defective memory.
Phila. Davis, 1926, 340 p.

Malinowski, B. Crime and custom in savage society.
N. Y. Harcourt, 1926, 132 p.

Mayo clinic. Sketch of the history of the . . .
Phila. Saunders, 1926, 185 p.

Michaelis, E. Die Menschheitsproblematik der Freudschen Psychoanalyse.
Leip. Barth, 1925, 123 p.

Milner, R. Die Heilung der Krebse.
Leipzig. Hirzel, 1926, 195 p.

Modern science and people's health. Ed. by B. D. Gruenberg.
N. Y. Norton, 1926, 250 p.

Munk, F. Grundriss der gesamten Röntgendiagnostik innerer Krankheiten. 3. Aufl.
Leip. Thieme, 1926, 316 p.

Noyes, W. A. Organic chemistry for the laboratory.
Easton, Pa. Chem. Pub. co., 1926, 329 p.

Pearl, R. Alcohol and longevity.
N. Y. Knopf, 1926, 273 p.

Proskauer, C. Iconographia odontologica.
Berlin. Meusser (1926), 231 p.

Ramus, C. Outwitting middle age.
N. Y. Century co., 1926, 269 p.

Rivers, W. H. R. Psychology and ethnology.
Lond. Kegan Paul, 1926, 324 p.

Sachs, B. The normal child.
N. Y. P. B. Hoeber, 1926, 105 p.

Sampson, C. M. A practice of physiotherapy.
St. Louis. Mosby, 1926, 620 p.

Shastid, T. H. Our own and our cousins' eyes.
Southbridge. Am. opt. co., 1926, 199 p.

Stevens, A. A. The practice of medicine. 2. ed.
Phila. Saunders, 1926, 1,174 p.

Stoklasa, J. Handbuch der biophysikalische und biochemischen Durchforschung des Bodens.
Berlin. Parey, 1926, 812 p.

Tandler, J. Lehrbuch der systematischen Anatomie.
Leipzig. Vogel, 1926, 467 p.

Thom, B. P. Hygieia.
N. Y. E. P. Dutton co., 1926, 107 p.

Thomson, A. & Miles, A. Manual of surgery. 7. ed.
Lond. Oxford pr., 1926, 3 vols.

Thomson, F. G. & Gordon, R. G. Chronic rheumatic diseases.
Lond. Oxford pr., 1926, 202 p.

Tobey, J. A. The national government and public health.
Balt. J. H. pr., 1926, 423 p.

Trendelenburg, P. Grundlagen der allgemeinen und speziellen Arzneiverordnung.
Leipzig. Vogel, 1926, 282 p.

Trendelenburg, W. Die naturlichen Grundlagen der Kunst des Streichinstrumentspiels.
Berlin. Springer, 1925, 300 p.

Über den Stoffwechsel der Tumoren: Arbeiten aus dem Kaiser Wilhelm Institut für Biologie. Hrsg. von O. Warburg.
Berlin. Springer, 1926, 263 p.

Wilson, R. M. The beloved physician, Sir James MacKenzie.
Lond. Murray, 1926, 316 p.

HOUSE RULES OF THE NEW BUILDING

The following house rules have been approved by the Council:

I. *Coat Room*—A coat room is provided for the convenience of Fellows and guests. Coats, hats, and other artieles of apparel must not be left upon the chairs and tables in the reading, section and social rooms. This rule does not apply to patients and their friends who will take all wearing apparel to the waiting rooms adjoining the section rooms.

The coat room will be open from 9 A. M. to 7 P. M. and until the close of any evening meeting which is held in any of the meeting rooms.

The personnel in charge of the coat room are not allowed to solicit gratuities.

II. *Smoking*—Smoking is prohibited in the auditorium and in the library.

Fellows and guests are requested not to smoke during meetings.

Presiding officers at the various meetings are asked to call attention to this request of the Council.

Smoking is permitted in the members' reading room, the reception and collation rooms and in the halls.

Fellows and guests are requested to use due care in disposing of matches and ashes.

III. *Dinners and Suppers*—The Director is authorized to arrange dinners for the officers, trustees, committees and sections of the Academy. No assessment will be made for the use of the rooms for these groups.

Other medical societies and scientific bodies may use the reception room, collation room or both, for dinners or suppers, with the approval of the Council, for which an assessment will be made.

Approved societies making use of these rooms will employ their own caterers and will not be permitted to make use of the Academy china, linen, glass or silver. They will be held responsible for any damage or breakage to Academy property.

Alcoholic drinks must not be served by caterers or any member of the Academy staff.

IV. *Committee Rooms*—The Council and the Committee rooms shall be used only for Academy committees. Room 56, seating 18, and room 46, seating 14, may be used for outside committees.

V. *Telephone Service*—A charge of 5 cents will be made for all local calls and the regular charge for suburban and long distance calls. The telephone operator is instructed to ask for the names of persons putting in a call so that the charges may be collected. The charges will be collected either at the telephone office, by one of the library staff or by the man in charge of the information room.

Before a meeting and at the close of meetings, telephone calls may be put in only at telephone office and information desk.

FELLOWS RECENTLY ELECTED

The following named Fellows were elected at a Stated Meeting of the Academy held January 6, 1927:

Ralph Henderson Boots, M.D., 113 East 56th Street.
David Chapman Bull, M.D., 159 East 56th Street.
E. Everett Bunzel, M.D., 850 Park Avenue.
John Patrick Caffey, M.D., 45 East 55th Street.
Frances Cohen, M.D., 609 West 114th Street.
Paul Crenshaw Colonna, M.D., 59 East 54th Street.
John Dennis Cooney, M.D., 264 West 71st Street.
William Brown Doherty, M.D., 150 West 55th Street.
Edward Joseph Donovan, M.D., 507 West 113th Street.
William Phelan Driscoll, M.D., 5 East 53rd Street.
Edward Raymond Easton, M.D., 116 East 58th Street.
James Francis Faulkner, M.D., 351 East 50th Street.
John Winston Fowlkes, M.D., 30 West 59th Street.
Frank Freeland, M.D., 281 State St., Hackensack, N. J.
Meyer Harry Freund, M.D., 645 West End Avenue.
Margaret Evelyn Fries, M.D., 9 West 82nd Street.
Byron Heazelton Goff, M.D., 116 East 63rd Street.
Irving Gray, M.D., 112 Clinton St., Brooklyn, N. Y.
Leo Joseph Hahn, M.D., 145 West 86th Street.

Julius Arky Haiman, M.D., 240 West 98th Street.
Leland Earl Hinsie, M.D., Psychiatric Institute, Ward's Island, N. Y.
Otto Rudolph Holters, M.D., 513 Second Ave., Asbury Park, N. J.
George Hall Hyslop, M.D., 116 East 63rd Street.
Adolf Jacoby, M.D., 151 West 77th Street.
James Wesley Jobling, M.D., 228 West 71st Street.
William Clinton Johnson, M.D., 25 Tulip St., Summit, N. J.
James Louis Joughin, M.D., 114 East 54th Street.
James Craig Joyner, M.D., 853 Seventh Avenue.
Isador William Kahn, M.D., 801 West End Avenue.
Marion E. Kenworthy, M.D., 105 East 53rd Street.
Alvin Walter Klein, M.D., 123 East 53rd Street.
George August Koenig, M.D., 11 East 68th Street.
Louis Winfield Kohn, M.D., 427 Park Avenue.
Benjamin Kramer, M.D., 6 Pierrepont St. Brooklyn, N. Y.
Rudolph Kramer, M.D., 121 East 60th Street.
Carl Henry Laws, M.D., 12 Pierrepont St., Brooklyn, N. Y.
Samuel Zachary Levine, M.D., 3364 N. 35th Street, Flushing, L. I., N. Y.
Ralph J. Levy, M.D., 302 West 77th Street.
Kenneth Mark Lewis, M.D., 59 East 54th Street.
Asa Liggett Lincoln, M.D., 140 East 37th Street.
Edith Maas Lincoln, M.D., 140 East 37th Street.
Philip Joseph Lipsett, M.D., 302 West 86th Street.
Ralph Irving Lloyd, M.D., 14 Eighth Ave., Brooklyn, N. Y.
William Frank MacFee, M.D., 33 East 68th Street.
John McDowell McKinney, M.D., 33 East 68th Street.
Louis Marton, M.D., 55 Central Park West.
Frank Lamont Meleney, M.D., 11 West 69th Street.
Henry Milch, M.D., 2178 Broadway.
Ralph Rembrandt Moolten, M.D., 1078 Madison Avenue.
Francis Louis Morhard, M.D., 907 Cauldwell Avenue.
William Wallace Morrison, M.D., 39 East 50th Street.
James B. Murphy, M.D., Rockefeller Institute, First Ave. and 66th Street.
Henry Alexander Murray, Jr., M.D., 50 Brimmer St., Boston, Mass.
Samuel Zachary Orgel, M.D., 145 West 71st Street.

George Guttman Ornstein, M.D., 150 West 55th Street.
Harold Lese Otto, M.D., 471 Park Avenue.
Frank Overton, M.D., Patchogue, L. I., N. Y.
Russel Hugo Patterson, M.D., 135 East 65th Street.
Frank Gordon Pedley, M.D., 104 Maple Ave., Mamaroneck, N. Y.
Frederick Prime, M.D., 131 East 66th Street.
Jules Jehin de Prume, M.D., 29 West 87th Street.
Walter Eugene Rahte, M.D., 876 Park Avenue.
Erich Herbert G. Restin, M.D., 132 Park Ave., Mt. Vernon, N. Y.
Paul Reznikoff, M.D., 1379 Union St., Brooklyn, N. Y.
Guilford Allen Robinson, M.D., 653 Park Avenue.
Samuel Solomon Rosenfeld, M.D., 1272 Grand Concourse.
Zachary Sagal, M.D., 320 West End Avenue.
Saul Simon Samuels, M.D., 164 West 79th Street.
Henry Suydam Satterlee, M.D., 175 East 71st Street.
Newton Thomas Saxl, M.D., 232 East 72nd Street.
Henry Morris Scheer, M.D., 522 West End Avenue.
Bela Schick, M.D., 17 East 84th Street.
Charles Wadsworth Schwartz, M.D., 33 East 68th Street.
Ernest Bartine Smith, M.D., 1629 Spruce St., Philadelphia, Pa.
Morley Thomas Smith, M.D., 650 Main St., New Rochelle, N. Y.
Ramsay Spillman, M.D., 480 Park Avenue.
Lewis Dunbar Stevenson, M.D., 20 West 50th Street.
John Edward Sutton, Jr., M.D., 811 Lexington Avenue.
Lucy Porter Sutton, M.D., 811 Lexington Avenue.
Joshua Edwin Sweet, M.D., 39 Fifth Avenue.
Henry Keller Taylor, M.D., 333 West End Avenue.
August Stephen Astor Thommen, M.D., 24 East 48th Street.
William Carson Von Glahn, M.D., 45 East 55th Street.
Lewis Clark Wagner, M.D., 105 East 38th Street.
Thomas Edward Waldie, M.D., 50 East 75th Street.
John Jacob Westermann, Jr., M.D., 2 East 96th Street.
Ira Solomon Wile, M.D., 264 West 73rd Street.
William Henry Woglom, M.D., 545 West 111th Street.
Walter Stuart Woodruff, M.D., 421 Huguenot St., New Rochelle, N. Y.

and for Associate Fellowship:

Frederick Bonner Flinn, A.B., 376 Vose Avenue, South Orange, N. J.

John Adams Kingsbury, B.S., 49 Wall Street.
Ernest Lyman Scott, B.S., Ph.D., Furnald Hall, Columbia University.
William Dwight Tracy, D.D.S., 46 West 51st Street.

DEATHS OF FELLOWS OF THE ACADEMY

William Rose Hynes, M.D., 78 West 92nd Street, New York City; graduated in medicine from the University of Chicago in 1900; elected a Fellow of the Academy December 3, 1908; died December 13, 1926.

Samuel Lloyd, M.D., B.S., 30 East 40th Street, New York City; graduated in medicine from the University of Vermont in 1884; elected a Fellow of the Academy May 7, 1891; died December 19, 1926. Dr. Lloyd was a Fellow of the American Medical Association, a Fellow of the American College of Surgeons; a member of the Alumni Association of Post Graduate Hospital and of the Alumni Association of St. Luke's Hospital. He was also director of surgery at the Lutheran Hospital and consulting surgeon at Post Graduate, St. Francis, Italian, Benedictine, Kingston, United Portchester, St. Francis, Poughkeepsie, and St. Mary's Hospital, Orange, N. J.

COMMITTEES OF THE ACADEMY

Committee on Admission

FREDERICK T. VAN BEUREN, JR., *Chairman*
GEORGE B. WALLACE
ARTHUR M. WRIGHT
SAMUEL BRADBURY
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